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# CROSS-SECTORAL ISSUES

## Human Settlements

## Report of the Secretary-General of the Conference

## INTRODUCTION

1. By its decision 1/28 of 31 August 1990, the Preparatory Committee for the United Nations Conference on Environment and Development (UNCED) invited the United Nations Commission on Human Settlements to pay special attention to the agenda and mandate of the Conference, with particular reference to the living and working environment of the poor in urban slums and rural areas, in order to make a substantive contribution to the preparatory process of the Conference.

2. In response, the Commission on Human Settlements, at its thirteenth session, held in Harare, Zimbabwe, from 29 April to 8 May 1991, endorsed a report entitled "People, Settlements, Environment and Development". This report, which had previously been adopted at an intergovernmental meeting held at the Hague in November 1990, sets out the role of human settlements in the context of sustainable development. The Commission also adopted a theme paper

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under the title "The Significance of Human Settlements and the Global Strategy for Shelter to the Year 2000 for the Concept of Sustainable Development, with particular emphasis on the relationship between economic development, improving the living conditions of the poor and the planning and management of settlements". Finally, the Commission adopted a resolution (13/19) which, inter alia, stressed the critical role and contribution of human settlements and urbanization to environmentally sound and sustainable development; emphasized that global efforts must be made to build urban and human settlements management capacity through coordination efforts; listed a number of sustainable human settlements approaches which could contribute to the protection of the atmosphere, the protection of the quality and supply of freshwater resources, the protection of the oceans and coastal areas, the protection and management of land resources, the environmentally sound management of wastes, the improvement of the living and working environment of the poor in urban slums and rural areas, and the protection of human health conditions. The resolution recommended that the Preparatory Committee consider the question of human settlements and in the preparation of Agenda 21, give due attention to human settlements in all related issues.

3. The Commission requested the Executive Director of the Centre to transmit the Hague report and the theme paper to the Secretariat of the United Nations Conference on Environment and Development as the Commission's substantive contribution requested by the Preparatory Committee of the Conference. These documents are available to delegations.

4. The two documents mentioned above highlight the relationship between human settlements and sustainable development and illustrate how appropriate human settlements policies and programmes of action can contribute meaningfully to the attainment of the environment and development goals on the Conference agenda.

5. The present report was prepared by the UNCED Secretariat on the basis of the above contribution and in close cooperation with the United Nations Centre for Human Settlements (Habitat) and other interested agencies. Part I presents a brief overview of the human settlements situation after the 1976 United Nations Conference on Human Settlements (Habitat), with special reference to poverty, urbanization and the problems and opportunities posed by growing large urban agglomerations; and illustrates the intersectoral nature of human settlements, as well as their specific linkages with other issues of concern to the Conference. Part II contains proposals for programme action areas for "Agenda 21".

## CITIES OF THE DEVELOPING WORLD ARE EXPERIENCING GREAT URBANIZATION PRESSURES ...

6. "Cities are currently absorbing two-thirds of the total population increase in the developing world. At this rate, close to 2 billion people will populate the urban areas of developing countries by the year 2000, with some 600 million of this number being added during the current decade alone. Another 2 billion people are expected to be added to the urban population of the developing countries between 2000 and 2025. Moreover, the majority of

these new urban residents will be living in large cities. Today, half of the urban population is located in some 360 cities of over half a million inhabitants each.

**... AND ARE MAKING VITAL CONTRIBUTIONS TO ECONOMIC GROWTH ...**

7. Cities are the main catalysts of economic growth in developing countries. Economic activities tend to concentrate in the urban centres, where today 60 per cent of gross national product is generated by about one-third of the total population.

**... AND HUMAN WELL-BEING ...**

8. Cities provide health, educational and social services to their own residents, but also to many more people who cannot find such services in smaller settlements and sparsely populated rural areas.

**... BUT THE URBAN ENVIRONMENT IS DECAYING ...**

9. For the majority of the city dwellers in the developing countries, the urban environment is worsening as a result of the inability of the city or national government to provide satisfactory services for sanitation, solid waste disposal, transport and energy for heating or cooking.

**... AND THE POOR SUFFER MOST ...**

10. As the physical environment in and around the growing cities deteriorates, those affected most are the urban poor, who make up 30 to 60 per cent of the urban population in developing countries and whose numbers are growing. The increased costs of health care and the productivity loss due to mortality and morbidity from gastroenteric and respiratory diseases and malnutrition are only indicators of the economic impact on the poor; we cannot adequately measure the unquantifiable costs in human suffering and lowered quality of life. For the poor, the main environmental priorities remain improved housing and the provision of basic water and sanitation services at affordable costs. Moreover, in the rapidly industrializing cities of the developing world, there is evidence that the poor are at significantly higher risk from chronic and degenerative diseases previously associated with developed countries." 1/

**HUMAN SETTLEMENTS AND SUSTAINABLE DEVELOPMENT**

11. Although there is a large and rapidly growing body of literature about "sustainable development policies", little consideration is given to the human settlements aspects of such policies, and such literature as there is tends to concentrate on issues related to air quality, water quality or the preservation of national landscapes. These are clearly important issues, but they are not the only aspects of human settlements which deserve consideration; in a sustainable-development context, attention has to be paid, first, to the economic and social roles of settlements. Human settlements have a central place in economic and social policy-making and in management of interactions between the built and natural environments.

12. National and subnational (regional) settlement systems are the framework within which economic activities operate, and the settlements system - cities, small centres and rural settlements and their interconnections - provides the spatial context for most capital-investment decisions. Settlements systems also have an important role in agricultural development, since it is only through the urban system and its links with rural settlements that farming can be strengthened with agricultural extension services, with production inputs, with credit support and with storage, marketing and processing facilities. Finally, settlements systems have a central place in social provision: it is through the settlements system that both rural and urban populations obtain access to health care, education, communication facilities and emergency life-saving services.

13. In essence, sustainable development means meeting the needs of the present generation without compromising the ability of future generations to meet their needs, and meeting human needs implies recognizing each person's right to a standard of living adequate for health and well-being, including adequate access to food, clothing, shelter, medical care and necessary social services (as stated by the Universal Declaration of Human Rights). This Declaration and subsequent United Nations documents have also stressed that development goals should include the right to choice and participation in representative governmental structures. In the context of sustainable development, human settlements management seeks not only the achievement of good living and working environments but also the attainment of economic, social and political goals, by making optimum use of the global natural-resource base of life-support systems. Thus, "sustainable settlements development" brings together two strands of thought about the management of human activities - one concentrating on developmental goals (including a concern that the poor receive an equitable share of the benefits of development); the other on achieving those goals without damaging the planet's life-support systems and without jeopardizing the interests of future generations.

## I. BACKGROUND

### A. FIFTEEN YEARS OF HUMAN SETTLEMENTS SINCE HABITAT: UNITED NATIONS CONFERENCE ON HUMAN SETTLEMENTS

14. In 1976, the United Nations convened its first major Conference on Human Settlements. The 64 recommendations for national action adopted by the Habitat Conference covered six major areas: settlement policies and strategies; settlement planning; shelter, infrastructure and services; land; public participation; and institutions and management. Under these headings, individual recommendations referred to a very broad range of issues which can be traced in the present Human Settlements Programme of the United Nations and in specific programmes launched and developed by the Centre and by its international partners in human settlements development.

15. The institutional arrangements outlined by the Conference resulted in the consolidation of various existing units and activities of the United Nations Secretariat into the United Nations Centre for Human Settlements (Habitat), to act as the focal point for human settlements within the United Nations system,

to provide secretariat services to the United Nations Commission on Human Settlements and to implement an integrated work programme which includes research, technical cooperation and information dissemination.

16. The Commission on Human Settlements, in particular, has taken the lead in developing new perspectives on human settlements issues which also have a bearing on wider development issues: among them it is worth mentioning the "enabling approach" 2/ to human settlements development and the identification of urbanization as a challenge and an opportunity for development, rather than simply the result of rural underdevelopment and uncontrolled migration; the 1987 International Year of Shelter for the Homeless and the "Global Strategy for Shelter to the Year 2000"; the Urban Management Programme, in cooperation with UNDP and the World Bank; the Sustainable Cities Programme; the definition and support of the role of women in human settlements development; and the evolution of research, training and technical cooperation efforts from a project-by-project basis to an integrated programme approach.

17. Thus, possible solutions to human settlements problems have been developed starting from the sound foundation provided by the Habitat Conference. They have taken the form of policy recommendations across the whole spectrum of human settlements, of specific research work and technical guidelines covering building materials, the construction sector, water supply and sanitation, appropriate modes of transport, environmental planning and management, energy, the assessment of training needs, and many others; and of field-testing of appropriate and replicable approaches in practically all developing countries. As a result of these activities a large number of developing countries are strengthening their human settlements institutions, promoting decentralization, and mobilizing the resources of many new actors for the improvement of the settlement conditions of relatively large numbers of their population.

18. Nevertheless, at the policy level, a number of countries still perceive human settlements, and the provision of shelter in particular, as a top-down responsibility. Decentralization policies transferring functions and responsibilities are rarely accompanied by the resources, staff and legislation enabling local authorities to expand their sources of revenue. The poor, their settlements and their informal activities are still seen as disturbing problems, rather than resources to be included as legitimate actors in the mainstream of development. More generally, expenditures for human settlements management and development are still perceived by too many policy makers as social expenditures, rather than what they are and what they can be - one of the indispensable foundations of social and economic progress, economic growth, human development and environmental improvement. To date it is estimated that less than 3 per cent of the total commitment of the multilateral programme is allocated to the shelter sector. Only in the late 1980s has the realization of the urban dimension of development taken a concrete dimension with initiatives such as the 1986 DAC/OECD meeting on Urban Development, the launching of the UNDP/World Bank/UNCHS Urban Management Programme in the same year, WHO's Healthy Cities Programme, and the World Bank's "Urban Policy and Economic Development and Agenda for the 1990s" in 1991.

19. This must also be seen against a background of escalating human settlements problems, a situation in which long term planning is overshadowed by the urgencies of crisis management; a growing gap between escalating demand and stagnant, and often decreasing public-sector capacity and resources; the short-term repercussions of structural adjustment policies; mounting debt problems; and the growing problem of poverty, seen from the combined point of view of national situations and the growing numbers of urban and rural poor in the developing world and in this connection, the "urbanization of poverty", the most recent and preoccupying phenomenon in the developing world.

## B. HUMAN SETTLEMENTS CONDITIONS AND TRENDS: SOME BASIC ISSUES

### Population

20. The present population of the world is estimated at around 5.3 billion. At its peak in the late sixties and early seventies, the average annual rate of increase of the world's population was close to two per cent. Projections suggest that this rate of increase will fall to less than one per cent by the second decade of the next century. However, the gradual abatement of global population growth rates varies from one region to another. In addition, diminishing rates of population increase in developing countries apply to increasingly large absolute numbers. The result is that absolute population increases in the developing world will reach their historic peak in the remaining part of the present century and initiate a slow downward trend only twenty years from now. During the present decade, the developing countries will have to plan for shelter, infrastructure and services for nearly a billion additional people, both rural and urban - not to mention the need to improve existing conditions and to overcome the enormous deficiencies of existing settlements. The urban population of the developing countries, in particular, is increasing at a rate of about 3.6 per cent per year, which means a doubling time of only 20 years. This is from combined natural increments of urban populations and rural-urban migration.

21. Many countries have successfully implemented policies to lower population growth rates; however, shelter, infrastructure and services are needed today, and policies and programmes are required to increase the capacity of nations to satisfy equally large needs in the future as well.

22. There are differences between urban and rural population growth patterns. According to a recent United Nations Study on Fertility Behaviour in the Context of Development, based on the United Nations World Fertility Survey, urban/rural fertility differentials have widened, owing to rapid declines in fertility in urban areas. Several factors account for this phenomenon: women in urban areas desire smaller families, marry later and use contraception more often and possibly more efficiently.

23. Experts have also theorized on the magnitude of rural/urban differences in fertility changes in the course of the demographic transition. It is thought that at the initial stage, urban/rural differences are small. Gradually couples develop preferences for smaller families, and the use of various methods of fertility control spread among the urban population. Then, at the last stage of the transition, urban attitudes and values concerning fertility and fertility-related behavior spread to rural areas: rural

fertility then falls, and, ultimately, rural and urban fertility levels converge and stabilize around low levels. Thus, urbanization has a far-reaching effect on the reduction of natural population growth rates not only in urban areas but also in rural areas. Paradoxically, urbanization might be the most powerful long-term factor of spontaneous decrease in overall rates of population growth.

Urbanization

**World Urbanization Trends**

24. "Global urbanization will continue. While almost half of the world's population is already urban, by the first quarter of the next century the majority of the world's inhabitants - over 5 billion people - will live in urban settlements. A growing share of the world's poor will live in rapidly growing urban agglomerations." 3/

25. Urbanization - the process by which population settles within areas classified as urban - shows different trends in the industrialized and in the developing countries. In industrialized countries, high levels of urbanization were reached by the middle of the present century, and urban population has now practically stabilized. In 1950, more than half of the industrialized countries' population already lived in cities, and this percentage has grown steadily - from 60.5 per cent in 1960 to 72.7 per cent at present. By the year 2025, almost eight out of ten residents of industrialized countries will live in cities and towns.

26. Urbanization processes have been much more rapid in developing countries. In 1950, the percentage of the total population living in urban areas was only 16.9 per cent. It grew very rapidly to 25.5 per cent in 1970 and 33.9 per cent at present. In less than 20 years from now, nearly half of the population of developing countries will live in urban areas (see table).

Urban population in industrialized and developing countries 4/

1950-2025 (millions)

| Year | Developed Countries | | Developing Countries | |
|---|---|---|---|---|
| | Urban | % of total population | Urban | % of total population |
| 1950 | 448 | 53.8 | 285 | 16.9 |
| 1960 | 571 | 60.5 | 459 | 22.1 |
| 1970 | 699 | 66.6 | 675 | 25.5 |
| 1980 | 798 | 70.2 | 972 | 29.3 |
| 1990 | 876 | 72.7 | 1 385 | 33.9 |
| 2000 | 945 | 74.8 | 1 972 | 39.5 |
| 2010 | 1 003 | 76.8 | 2 733 | 46.5 |
| 2020 | 1 050 | 78.4 | 3 599 | 53.5 |
| 2025 | 1 068 | 79.0 | 4 051 | 56.9 |

27. In industrialized countries, rural populations are steadily decreasing. In the developing countries, on the other hand, population is increasing in both urban and rural areas, although at a much lower rate in the second group. Rural areas will continue to be a substantial source of urban growth, supplementing a continuing increase from higher than replacement rates of fertility.

28. Rural-urban migration poses dramatic additional demands on the capacity of cities to provide land, shelter, infrastructure, services and employment; but at the same time, it relieves the demand for exactly the same needs on the part of out migrants who leave rural areas overtaxed beyond their carrying capacity. Natural population growth, which is highest in rural areas, can only take three directions: in the absence of migration, the concentration of population on existing and already fully exploited agricultural lands, or the opening up of new lands for agriculture, often with decreasing returns on investment; in the case of rural-rural migration, the colonization of the rural frontier, which happens, as a rule, in ecologically fragile regions, with devastating consequences for the environment and for the settlers themselves (deforestation, destruction of natural habitats, decreasing productive returns on over-exploited and often inadequate land); or migration to existing urban settlements.

29. It may be stated that, from an environmental point of view, migration to urban settlements is the most desirable option. While the high density of human activity which is characteristic of cities leads to special environmental problems, such as congestion and pollution, it is also true that cities are better places than remote and unplanned rural areas to mitigate and control the environmental effects of their development. Citizens have much more leverage than isolated rural dwellers to exert pressure on government, local authorities and industry to protect their own health and to limit the impact of activities that are damaging to the environment.

30. Urban growth, with its high densities, may also lead to a more efficient use of limited land areas. Each productive activity has certain needs for land, but modern technology can provide solutions to land-efficient development for both the urban and rural sector. In urban settlements, for example, appropriate land-use policies based on efficient densities and development patterns can reduce the amount of land needed for settlement development, and at the same time minimize the need for transportation, with consequent beneficial effect in terms of resource consumption, environmental protection and amenities for residents.

31. Finally, urbanization provides a partial answer to the needs, preferences and aspirations of people. The cities of the developing world are providing an immensely resourceful safety net for millions of dispossessed and jobless rural migrants, as well as for their own settled and growing populations. Cities also act as hosts to the needs of non-urban residents: it is often common for millions of rural dwellers to use higher-level urban services (special health care, for example) for emergency needs that cannot be satisfied in isolated and poorly equipped rural locations.

32. These considerations have led in recent years to a more constructive approach towards urbanization issues. This approach can be best summarized in

the following statement from the UNDP 1990 Human Development Report: "Rapid urbanization is neither a crisis nor a tragedy. It is a challenge for the future. The process of urbanization has created a host of new opportunities intermeshed with new and ill-understood problems ... The focus on today's cities must move decidedly towards better management, with past failures giving way to more appropriate policies and practices".

Megacities

33. Trends in the distribution of the world's urban population by size-classes of cities are very significant. Present global estimates and projections show a gradual redistribution of urban population in the 1,000,000+ city-size range. In 1960, more than one-third of the world's city dwellers lived in cities below 100,000 people, more than one-third of the world's urban population already lived in cities with above 1 million population. By the year 2000, almost half of the total urban population of the world will live in urban agglomerations of one million inhabitants or more. Their number (1.3 billion people) will be greater than the total urban population of the planet 40 years before. It is estimated that by the year 2000, 18 of the 24 world cities of over 10 million inhabitants will be in the developing countries.

34. While some of the megacities in the industrialized world are showing trends of population stabilization or decrease, the largest urban agglomerations located in developing countries will continue to grow. Decentralization policies can have their effects felt only if sustained over prolonged periods of time, and only as a result of massive investments capable of creating real alternatives to the agglomeration economies present in the largest cities. Therefore, the unavoidable option is to prepare for this future scenario and to take anticipatory action in view of the many crises which have already impacted severely on the quality of life and management prospects of many of these large cities, particularly in the areas of water supply, water quality, and environmental pollution.

35. In spite of the problems megacities face there is no clear, substantiated evidence to suggest an automatic correlation between city size, quality of life and environmental degradation. The most recent global survey on this subject is "Cities: Life in the World's Largest Metropolitan Areas", conducted by the Washington-based Population Crisis Committee. The survey was based on 10 indicators: public safety; food costs; living space; housing standards; communications; education; public health; peace and quiet; traffic flow; and clean air. The combined indicator based on these data shows no correlation between quality of life and city size. In India, for example, Calcutta, with a population of almost 13 million, ranks low on the global scale, but also shows a marginally better record than that of Kanpur (population, 2.3 million). Shanghai (population: over 9 million) shows a better overall ranking than Harbin and Nanjin, two other cities of China below three million in size. In Latin America, the combined indicator for the fourth largest urban agglomeration in the world, Sao Paulo (population: 17.2 million) is slightly worse than that of Belo Horizonte but considerably better than that of Recife, another Brazilian city less than one-sixth its size.

36. Similarly, while the air pollution situation, crippling traffic and water problems of some cities are well-known cases, smaller cities may present such liabilities as lack of employment and access to land and essential infrastructure which fuel migration to megacities.

37. Developing countries should therefore adopt urbanization policies based on efficient management of all cities, large and small. The aim should be to take maximum advantage of irreversible and powerful urbanization development trends and to strengthen urban settlements that can act both as centres of production and growth for national and subnational economies, as well as efficient recipients of rural-urban migratory flows. At the same time, the strengthening of intermediate cities which can act as magnets for migration flows may take some pressure off the megacities. The role of secondary cities and intermediate settlements, as suggested by the report of the World Commission on Environment and Development, must be given full consideration.

38. Despite the increasing process of urbanization the majority of the developing country population still lives in rural areas, relying heavily on agriculture for their livelihood. To the extent efficient agriculture can be encouraged by appropriate policies and infrastructure, people will remain in the countryside, taking pressure off the cities. Efficient agriculture, which involves rural/urban trade of inputs and outputs, also gives rise to urban job creation. Thus, one aspect of an overall urban strategy should be measures to support more efficient agricultural development.

Poverty

39. "The intolerable and worsening living and working environments of the poor in urban slums and rural areas, with their implications in terms of human suffering, deteriorating health and reduced life expectancy, are a major determinant of poverty. Therefore, the improvement of the living and working environment of the poor is a priority concern". 5/

40. Estimates of world poverty vary according to different methods of calculation. One of the most recent assessments (World Bank Development Report 1990) gives a global figure of one billion people below the poverty line. According to estimates in the 1989 Report on the World Social Situation, the percentage of the world's population living in absolute poverty has decreased between 1970 and 1985 (from 52 to 44 per cent), but the absolute numbers of the poor are increasing in all developing regions: during the 1970-1985 period they increased by 22 per cent. What is particularly striking is the increase of urban poverty. While the percentage increase of the world's rural poor is estimated at 11 per cent, the percentage increase of the urban poor has been 73 per cent over the same 15-year period. Peaks are found in Latin America, where the urban poor have more than doubled, and in Africa, where the increase was as high as 81 per cent.

41. In many countries of the developing world, poverty has become a predominantly urban problem. Thus, increasing numbers of people have to try and satisfy basic needs for shelter, infrastructure and services in urban environments, where access to the requisites for settlement - employment, land, building materials, mobility - are much more difficult to satisfy than in most rural contexts.

42. Most of the urban and rural poor have no access to safe drinking water, elementary sanitation and primary health-care services. A high proportion of the urban and rural poor are disabled by household or workplace accidents. Informal urban settlements are often located in hazardous, flood-prone and unhealthy sites, where overcrowding is compounded by exposure to communicable disease and garbage dumps constitute a permanent health hazard.

43. The low-income majorities in the developing world, however, are not "poor" in terms of skill, ingenuity, social identity, traditions, culture or personal dignity (and other attributes of human "richness"); they are poor in the sense that, in the context of rapidly-evolving societies, based on monetary values and on the exchange of material goods, they cannot afford access to a dignified and healthy livelihood. Adequate shelter is one basic need which they cannot meet. In the absence of an adequate and steady source of income, the only ways to gain access to decent shelter in an urbanized context are the provision of shelter by government (a policy which has often proven inefficient and cannot address the problem at the scale required), an efficient system of subsidies, whereby the gap between disposable income and the market price of decent housing can be reduced or the facilitation of self-help and/or "informal" solutions to shelter needs.

44. The first two options or a combination of the two have found application in some industrialized societies, where some of the shelter needs of poor urban minorities could be addressed by sizeable public-housing programmes and adequate subsidies. In most developing countries, the situation is exactly the opposite: welfare programmes are virtually non-existent, and public housing programmes are targeted to limited numbers of recipients, whereas the poor constitute, as we have seen in many cases, the bulk of the urban population.

45. In such situations, the urban poor are left with the residual option of finding shelter with their own means. This happens in a variety of ways: temporary accommodation with friends and distant or close relatives; rental accommodation provided by the informal sector. For many others the only option is to build, individually or on a communal basis temporary shelter on derelict or vacant sites.

46. It is necessary for governments to understand and acknowledge this state of affairs and to facilitate the recognition of this option as a legitimate settlement process. Examples of appropriate and feasible approaches abound: they all relate to the legitimization of the urban poor's efforts in providing themselves with adequate housing. Among them are the granting of security of tenure, the simplification of existing codes and regulations, the acceptance of indigenous and low-cost building materials, the regularization of informal settlements which are not permanently exposed to contamination, flooding or landslides, the provision of basic infrastructure with the participation and financial contribution of residents and the promotion of other forms of access to low-cost shelter, such as rental housing. All of these measures can greatly improve the living conditions of the urban poor and, at the same time, contribute to environmental improvement in urban areas.

47. Serious problems also exist in the developed countries. For instance, in many countries the number of homeless people has been growing rapidly in

recent years. In others, there is a significant proportion of people suffering severe deprivation. Many such people (especially the uneducated, poor and elderly) are trapped in declining industrial cities or decaying city districts, as the young well-educated or rich move out. Others still also have serious problems, resulting from the decline of large industrial centres. Slow economic growth and serious housing shortages affect much of the urban population, and, recently, there have been economic and political uncertainties, rising unemployment and cutbacks in social-security provision.

## C. LINKAGES BETWEEN HUMAN SETTLEMENTS AND ISSUES OF ENVIRONMENT AND DEVELOPMENT

### Land

48. In the developing countries, competition for finite amounts of land suited for agriculture, coupled with the introduction of capital-intensive agriculture, makes it increasingly difficult for growing numbers of rural dwellers to sustain their livelihood base. Many of them move to ecologically fragile lands on the agricultural frontier, where prospects for sustainable agriculture are even more precarious and settlement conditions are exceptionally harsh because of the remoteness from urban centres and lack of infrastructure and services.

49. In urban areas, land is also competed for by various uses and users: industry, services, commerce, transport infrastructure, and housing. However, appropriate criteria for settlement planning and development can make land use more efficient. New urban expansion areas, for example, can be planned according to suitable densities, without sacrificing space and public amenity and at the same time allowing for more cost-efficient infrastructure and transport systems. An important contribution to sustainable human-settlements approaches to the land issue can come from improving the access of the poor to suitable land in urban areas. Expanding access to participation in the land market by removing the legal and regulatory bottlenecks that presently conspire to exclude low-income groups from the market should become a priority objective for municipal authorities, together with parallel efforts for the advance planning of suitable sites for informal-sector and self-help development and the regularization of existing low-income settlements suitable for consolidation.

### Deforestation

50. Uncontrolled deforestation processes are the result of a number of causes: among them are commercial exploitation and pressure for new land, usually for settlement and agriculture.

51. Land reform though a difficult goal in these countries must be pursued, and viable alternatives for gainful employment in the non-agricultural sector should be sought.

52. A problem which has received much attention is the destruction of soil cover and tree vegetation for fuelwood and charcoal production, which is the main source of energy for the urban and rural poor in many developing countries. It must be noted, however, that the poor resort to these means

simply because they still provide the cheapest, and often the only source of energy for heating and cooking purposes. Gathering fuelwood is a time-consuming, exhausting and often hazardous practice, which falls as a rule on women and children. Viable alternatives exist in terms of more efficient cooking stoves and of renewable sources of household energy, such as biogas. The introduction of these alternatives is simply a function of resources needed to improve their range of applicability and to disseminate their application in rural areas.

Energy and Transportation

53. Human settlements are vast consumers of energy for transport, household and industrial use and atmospheric pollution is largely due to the concentration of emissions caused by settlement-based activities. The industry and commerce sectors are estimated to absorb about 46 per cent of global commercial energy consumption, while the household and transport sectors account for the remaining 54 per cent. Thus, more efficient ways to provide for the energy needs of industry, households and for the transportation of people and foods can lead to considerable reductions in energy consumption and in atmospheric pollution.

54. There are several ways to reduce atmosphereic pollution: increase the efficiency in the use of fossil fuels; introduce and enforce appropriate standards and regulations; encourage the use of renewable resources of energy; and reduce the causes of atmospheric pollution at the source. The optimization of fossil-fuel use can be achieved through many means, and particularly in the transport sector, by encouraging energy-efficient modes of transport (e.g. public transport and rail).

55. Transportation alone accounts for approximately 50 per cent of the total global consumption of fossil fuel. Public transport is of fundamental importance to the urban and rural poor, who do not have access to suitable means of individual transport and have to travel long distances daily to reach their place of work. In urban areas, efficient public transport systems are one of the best means available to relieve traffic congestion, which is a prime cause of discomfort and air pollution.

56. Energy is an important input for building materials production and therefore an area where considerable savings can be achieved. The energy demand for the heating and cooling of buildings can also be reduced through appropriate insulation and building design and the adoption of renewable energy sources.

57. It should be noted that the abatement of atmospheric pollution is not only dictated by environmental priorities, but justified by equity considerations. It is the poor whose health suffers most from daily exposure to high levels of atmospheric pollution.

Coastal area management

58. Coastal areas are the object of intense pressure and development because of their very characteristics: the presence of harbour facilities, their locational advantages for certain industrial processes and the advantages they

offer for tourism and recreation. At the same time, they often contain precious and irreplaceable natural habitats, are permanently exposed to the risk of natural disasters such as hurricanes, cyclones and tidal floods, and are located at the interface between land-based and marine sources of pollution. Sea-level rise, which is the likely result of global climate changes now taking place, is an additional factor which must be taken into account by human settlements in coastal area.

59. Coastal area management calls for a coordinated effort among coastal municipalities so as to share the gains, as well as the costs, integrated urban development and environmental protection.

60. Other problems have to be addressed by controlling discharges of pollutants in upstream watercourses, and the best way of doing so is to provide adequate waste treatment infrastructure in inland settlements which, in turn, will improve their own environmental and health conditions.

Water supply

61. Water is indispensable for human existence, health, and all of humanity's productive activities. Human settlements are where all of these needs converge. Water is needed for drinking, washing, sanitation and a host of productive and service activities which support development and economic growth, particularly in large cities. In the developing countries, most settlements, both urban and rural, are afflicted by a chronic lack of safe water supply - a lack which is due not only to increasing costs in water provision and distribution infrastructure, but also to poor management and maintenance of existing urban and rural water systems, resulting in considerable water losses.

62. In addition, the competing needs for water in human settlements inevitably affect the weakest segments of the population. It is the urban and rural poor, and in particular women and children, who have to fetch water over long distances and who pay water vendors in informal urban settlements prices which can be up to five times higher than that of piped water supplied to higher-income neighbourhoods. This results in severe impacts on income, hygiene, nutrition and health.

63. In urban areas, the causes and effects of water-supply problems can be addressed by forward-looking urban planning and management. Charges could reflect the actual costs of water supply and maintenance with appropriate cross-subsidy systems for low-income users. The superfluous use of drinking water for gardening, street washing, car washing, and a number of household uses can be discouraged through disincentives or regulations. The regularization of informal settlements, including water supply infrastructure, can create the conditions for residents to pay water charges regularly, thus contributing to the sustainability of urban water-supply systems.

Sanitation and Wastewater Management

64. Sanitary wastes and wastewaters are hazardous to health and cause adverse impacts on the environment. Lack of sanitation in a community results in increased costs for curative medicine and reduced productivity, as well as

lowering the quality of life generally. Uncontrolled discharge of urban sewage and industrial effluents contaminate potable water supplies and make surface waters unfit for safe use. Yet wastewater can be collected, treated and used for crop irrigation, aquaculture or industry.

65. The environment has a natural capacity to assimilate waste materials, but, as the density of population increases, these limits are quickly exceeded. In rural areas, human waste disposal must be dealt with along with provision of a safe and plentiful water supply and health education, if mortality (particularly infant mortality) and morbidity levels are to be reduced. However, both health risks and potential damage to living conditions are greatest in densely populated urban areas. Adequate sanitation provision (including sewerage), wastewater-disposal systems and stormwater drainage are vital in urban centres.

66. In the developing countries, less solid waste is produced per inhabitant, but only 30 per cent is collected on average. This situation poses significant public health problems, undermining the health and the well-being of the people, decreasing their productivity and constraining the development aspirations of the potential of individuals and settlements.

67. An environmentally sound and resource-efficient approach to the problem of growing amounts of sanitary waste, wastewaters and solid waste would therefore be a crucial component of human settlements policies and programmes. An extensive description of waste and sewage management issues can be found in document A/CONF.15/PC/76: Environmentally-Sound Management of Solid Wastes and Sewage-related Issues. However, it must be noted that improvements in water supply, sanitation and waste management can best be achieved through a settlement-wide, integrated management approach dealing with the entire cycle of water and waste management.

Construction Activities

68. Construction provides the direct means for the development, expansion, improvement, maintenance and preservation of human settlements, and economic growth in general. The construction industry is, therefore, vital to the achievement of national socio-economic development goals, including human settlements development.

69. Construction, however, can also contribute to the degradation of the environment, through physical disruption, the depletion of key renewable resources, and excessive consumption of energy. The production of building materials, in particular cement, lime and bitumen can account for a significant share of air pollution. CFCs have also been used by the construction industry (e.g. air conditioners and insulation products).

70. In the developing countries, the lack of appropriate and affordable building materials is a major factor hampering development and, in particular, affecting the shelter conditions of the urban and rural poor. On the one hand, the large-scale production of building materials is inefficient, and with higher end costs to the consumer. On the other, the production and use of indigenous and appropriate building materials is often discouraged by outdated attitudes and unrealistic building codes and regulations.

Opportunities for the small-scale production of building materials are thus lost, undermining both openings for employment and access to affordable building materials on the part of the urban and rural poor.

71. The seven topics illustrated in this section are but an exemplification of the far-reaching linkages that exist between human settlements, environment and development. In order to translate concern into action, however, it is necessary to think in terms of programme areas where sustainable human settlements policies can make a positive and lasting impact.

72. These programme areas suggested as options for Agenda 21 are illustrated in the following part of this document.

## II. OPTIONS FOR AGENDA 21

73. The information provided in the first part of this paper illustrates the fact that human settlements must be an important component of the overall goals of the Conference, particularly in relation to the alleviation of poverty and the improvement of the living conditions of the urban and rural poor. To the maximum extent possible, the programme action areas are cross-referenced to programme action areas contained in other Agenda-21 documents available to delegations. For additional background information on the seven programme areas listed below, delegations may wish to refer to the report "People, Settlements, Environment and Development" and the theme paper mentioned in paragraph 2 of the present document.

74. There will also be a need for a strong integration between all these programme areas. While improvements in any of them will certainly contribute to improving the quality of life of people, promoting economic growth and enhancing the prospects for environment sustainability, action in all programme areas will have to proceed, as far as possible, in a harmonious fashion. Otherwise, improvement in one area will be offset, or even nullified, by setbacks in others. Several opportunities are available to work towards this goal.

75. The first one is improved coordination between the international, national and local dimensions of development and between the sectoral responsibilities of international external support agencies.

76. The second opportunity is to base development activities on the needs, aspirations and resources of people. It is people who will ultimately decide what development and environment mean to them, and it is people who appreciate, better than any expert, the importance of development and of the preservation of the environment to their own lives and those of their children. The enabling approach to development is founded on this key principle.

77. The third opportunity is to see the key components of human settlements development - shelter, land, construction, infrastructure and services, transport, energy - as elements of an integrated function, which is human settlements management. This dimension will find its application at all levels of national development: certain management functions will be the prerogative of central governments, while others will be better performed at

the subnational level. Increasing responsibilities for human settlements management are being entrusted to metropolitan and municipal authorities, and this is why urban management is attracting so much more attention than in the past. But in the final analysis, no management function, large or small, will be performed effectively without the legitimization and participation of communities, where settlements management will be put to its ultimate test in terms of the improved well-being of all.

HUMAN SETTLEMENTS OBJECTIVE

78. The overall human settlements objective is to improve the social, economic and environmental quality of human settlements and the living and working environments of all, and particularly the urban and rural poor.

PROPOSED PROGRAMME ACTION AREAS

79. The following major human settlements-related programme action areas are proposed as options for consideration by the preparatory committee:

* ADEQUATE SHELTER FOR ALL
* HUMAN SETTLEMENTS MANAGEMENT
* LAND-RESOURCE MANAGEMENT
* ENVIRONMENTAL INFRASTRUCTURE:
  WATER, SANITATION, DRAINAGE, AND SOLID WASTE MANAGEMENT
* ENERGY AND TRANSPORT
* CONSTRUCTION
* HUMAN-RESOURCE DEVELOPMENT AND CAPACITY BUILDING
  FOR HUMAN SETTLEMENT DEVELOPMENT

## A. ADEQUATE SHELTER FOR ALL

Basis for Action

80. It is estimated that at least one billion people presently do not have access to decent shelter and that if appropriate global and national action is not taken, this number will increase dramatically by the end of the present century and beyond. The 1990 International Development Strategy for the Fourth United Nations Development Decade states that "... the increase in the number of homeless people in many developing countries has been one of the serious manifestations of the deteriorating human condition, and the improvement of human settlements as agreed in the Global Strategy for Shelter to the Year 2000 should be part of the crucial effort in this field ...".

81. A major global programme to address this problem is the Global Strategy for Shelter to the Year 2000, adopted by the General Assembly of the United Nations in December 1988. Despite its widespread endorsement, the Global Strategy needs a much greater level of political commitment and a far higher degree of attention and resources to reach the goal of adequate shelter conditions for all by the end of the century. The 1992 Earth Summit can give greater impetus to ongoing international and national efforts, stimulate new initiatives and renew global commitment to the Strategy's goal of adequate shelter for all to the year 2000.

Objective

82. The fundamental objective is to facilitate adequate shelter for all by the year 2000 through an "enabling approach" to shelter development and improvement specifically geared to the needs and circumstances of the urban and rural poor.

83. At the international level, the objective for multilateral and bilateral donors is to provide the maximum level of assistance to enable all countries, and particularly the least developed countries, to reach the objective above.

Activities: Supporting national shelter strategies

84. A nationwide, strategic approach is the fundamental prerequisite for mobilizing the resources and the capacity needed to address dramatically growing shelter needs. National shelter strategies should be formulated, adopted, implemented and monitored in close partnership between all government agencies and the non-government sector, and involve the full participation of all those, including the residents of low-income communities, and women, who have until now been relegated to the receiving end of shelter-delivery processes. The definition of shelter adequacy can be based on criteria of affordability and suitability to national and local needs, resources and conditions and not dictated by pre-determined standards.

(a) Countries which have not yet done so could, in two years' time, formulate and adopt a national shelter strategy based on the principles and recommendations contained in the Global Shelter Strategy.

(b) Countries could adopt specific enabling actions at the national and local level, which will include the regularization and upgrading of informal settlements, and facilitating the efforts of low-income residents and communities in self-improvement efforts, capacity building, construction, and access to finance and low-cost building materials.

(c) Countries could further strengthen their efforts in monitoring the implementation of their national shelter strategies toward reaching the goal of adequate shelter for all by documenting and sharing their experience, using the monitoring guidelines adopted by the United Nations Commission on Human Settlements. Monitoring activities could be accompanied by the capacity to assess the performance of the shelter sector in the efficient delivery of adequate and affordable shelter for all segments of the population through appropriate shelter performance indicators.

(d) External support organizations and bilateral donors could increase their efforts in assisting countries in national shelter strategy formulation, implementation and monitoring. All developing countries should have received such support by the year 2000. This action could be greatly facilitated by the organization of annual review meetings involving all executing and external support agencies and bilateral agencies.

(e) International assistance can be increased building up on existing support activities for shelter-sector performance carried out jointly by UNCHS and the World Bank. By 1995, all developing countries could have tested such indicators.

(f) Global progress reports covering national action as well as support activities of international organizations and bilateral donors can be produced and disseminated on a biennial basis.

## B. HUMAN SETTLEMENTS MANAGEMENT

### Basis for Action

85. Urbanization holds great opportunities for development and environmental management, but also poses a serious challenge. Sustaining the capacity of cities to support national economic development, improving the living and health conditions of their residents, and achieving a sustainable use of the natural resources they require to perform their role.

86. Settlement management policies coordinated with national investment efforts and effective decentralization can produce viable alternatives to the excessive concentration of population and economic activities and their undesirable side-effects in the largest cities, and develop the capacity of all cities, large and small, to harmonize the economic, social and environmental components of urban development.

### Objective

87. The objective is to provide urban settlements in the developing countries with the capacity to continue contributing to national economic development goals, to improve the living and health conditions of their residents, support rural development, and to manage natural resource in a sustainable way.

### Activities: Strengthening human settlements management

88. With regard to intermediate settlements, the following activities could be undertaken:

(a) all countries could review national urbanization processes and policies and identify the factors which determine the growth of urban centres;

(b) countries could formulate programmes for the preparation, funding and monitoring of investments which could have a catalytic role in maximizing private sector investment and thus increase employment opportunities and alleviate poverty within small and intermediate centres and surrounding rural areas; and

(c) multilateral and bilateral external support agencies could assist interested developing countries in the above activities.

89. In the area of urban management, a comprehensive framework for action already exists with the UNDP/World Bank/UNCHS Urban Management Programme, a concerted global effort to assist developing countries in addressing

urban-management issues. Activities could include the strengthening of the Urban Management Programme's action areas (land, municipal finance, environment and infrastructure), as well as new initiatives designed to improve its overall impact, such as:

(a) the further promotion of collaboration among all the key participants in urban development and management processes;

(b) the strengthening of the programme's capacity in producing and disseminating urban management guidelines in the areas of land management, urban environmental management, infrastructure management and municipal finance and administration;

(c) efforts to increase human resource capacity and strengthening developing country institutions, inter alia, through technical cooperation;

(d) the further promotion of partnerships at the city, national, regional and global levels; and

(e) establishing, from 1992 onwards, regional panels of experts on urban management issues to support programme interventions at the country level, including country consultations and interventions to help apply policy framework and tools developed by the Urban Management Programme.

90. Special attention will have to be paid by multilateral and bilateral agencies to strengthening the environmental component of the Urban Management Programme and its operational arm, the Sustainable Cities Programme, a global technical cooperation programme to support municipal authorities world-wide in improving their environmental planning and management capacity. Activities could include:

(a) strengthening the linkages between the above programme and other ongoing programmes aimed at the improvement of health and environment condition in cities, such as the UNDP/World Bank "Metropolitan Environmental Improvement Programme", which is underway in Asia, the CIDA-sponsored "World Cities and the Environment" and WHO's "Healthy Cities Programme"; and

(b) assisting individual cities in institutionalizing a participatory approach to sustainable urban development, based on a continuous interaction and dialogue between the actors involved in urban development (public sector, private sector, and communities).

91. In the area of collection and dissemination of urban data, countries could benefit from participating in the City Data Programme, recently launched by UNCHS (Habitat) after consultations with the World Bank and a number of other international organizations and bilateral donors. Activities in the first phase (1991-1994) could include:

(a) pilot projects in developing countries, consisting of a survey of city-level data-collection practices, training workshops, and the testing of a preliminary urban data framework; and

(b) the production of a PC-application software designed to store, process and retrieve city data for local, national and international exchange and dissemination.

## C. LAND-RESOURCE MANAGEMENT

### Basis for Action

92. In rapidly-growing urban areas, access to land suitable for development is becoming a serious problem. This exacerbates conflicts between various uses: industry, commerce, residence, open space, mobility. Rising costs of urban land and the poor functioning of land markets make it increasingly difficult for the urban poor to gain access to affordable and properly located and serviced land. In rural areas, non-sustainable practices such as the exploitation of marginal lands and the encroachment on forests and ecologically fragile areas results, in addition to environmental degradation, in diminishing returns for impoverished and landless rural dwellers. Rural population relocation policies have often met with very high costs, environmental problems and the failure to achieve lasting improvements in the living conditions of rural people.

93. Land utilization is often at the interface of urban and rural development. This is exemplified in the case of large metropolitan areas, in coastal zones, and other areas where industrial, commercial and agricultural uses are increasingly entering in conflict with one another. This calls for an integrated approach to land-resource management, which needs to be addressed at the international, national, subnational and local levels. In this connection, reference will also have to be made to the proposals contained in document A/CONF.151/PC/42/Add.2 (Protection and Management of Land Resources: Options for Agenda 21).

### Objective

94. The objective is to satisfy the land needs which are essential for human settlements development in ways that can guarantee equity and environmental sustainability.

### Activities: Implementing integrated land-resource management

95. Countries could undertake a comprehensive national inventory of their land resources, classifying them according to their best-suited uses and identifying environmentally fragile lands for special protection measures, including river basins and coastal zones.

96. On the basis of the above, countries could develop national land-resource management plans to guide land-resource development and utilization. The implementation of such plans can be supported by the following actions:

(a) the creation of efficient land markets which respond to demand for land-resource managment and which meet collective development needs;

(b) the development of fiscal incentives to ensure land-resource protection;

(c) the encouragement of public-private partnerships in managing land resoures;

(d) the strengthening of community-based land-resource protection practices;

(e) the establishment of secure tenure for all land-users; and

(f) the implementation of land-use control measures.

97. Appropriate forms of land tenure for low-income urban dwellers could be encouraged, and efforts accelerated to promote access to, and increased efficiency of, urban land markets.

98. Activities at the international level could include:

(a) the promotion of global awareness, through public information and education, of the negative consequences of land-resource degradation;

(b) international protocols or agreements for minimization of resource depletion and degradation;

(c) programmes to effect sustainable management of international river basins, through international legal instruments; and

(d) global land-resource management programme to coordinate international efforts including those of FAO, UNDP, the World Bank and the Urban Management Programme of UNCHS (Habitat) and promote the transfer of applicable experience on sustainable land-management practices to and among developing countries.

## D. ENVIRONMENTAL INFRASTRUCTURE: WATER, SANITATION, DRAINAGE, AND SOLID WASTE MANAGEMENT

### Basis for Action

99. Human settlements make large demands on natural resources and generate a variety of by-products which affect the living, working and natural environments. The results are growing water, land and air pollution translating into direct negative impacts on health and quality of life as well as the rapid deterioration and depletion of the environmental and natural resources essential for long-term sustainable development.

100. Adequate infrastructure is crucial to, and a determining factor of, the pace at which human activities, and thus development, can proceed and be sustained without adverse impacts on the environment. Increased productivity, improved health, a reduced burden of investments in curative medicine and contributions to poverty alleviation are but some of the benefits of providing essential infrastructure and basic services.

101. Since most of these initiatives will require interventions within the human settlement context, an overall umbrella programme that coordinates and concentrates international efforts and leads to action at the national and

local levels will prove essential. In this connection, reference can be made to the programme action areas proposed in documents A/CONF.151/PC/42/Add.7 (Freshwater: Options for Agenda 21) and A/CONF.151/PC/42/Add.10 (Solid Waste: Options for Agenda 21).

Objective

102. The objective is to provide adequate environmental infrastructure facilities for all people by the year 2025. The achievement of this objective would require that all developing countries are endowed with the necessary technical, financial and human-resource capacity by the year 2000.

Activities: Implementing an integrated approach to environmental infrastructure

103. The following activities are proposed under this programme area:

(a) a Settlement Infrastructure and Environment Programme could be launched following the Conference, under the initiative of UNCHS (Habitat) and in cooperation with other interested agencies. The programme could ensure coordination between the activities of all agencies in the area of environmental infrastructure, and could include monitoring, applied research, capacity-building and transfer of appropriate technology and technical cooperation;

(b) at the national and local level, countries could adopt an integrated approach to water supply, sanitation, drainage and solid waste management based on the combined resources of the above programme; and

(c) emphasis could be placed on an integrated approach to environmental infrastructure improvement in informal settlements. By the end of 1995, pilot programmes could be established in a number of developing countries.

## E. ENERGY AND TRANSPORT

Basis for Action

104. Achievement of sustainable global development implies realization of a sustainable energy future, especially in meeting transport, industrial and household demands. However, continuation of past patterns of energy-resource use without due regard for their ecological impact could lead to a resource-consumption crisis.

105. Human settlements represent a spatial organization of functions to meet human needs such as the efficient patterns of physical development and the movement of goods and people. By allowing access to employment opportunities, housing quarters and services, the transport sector meets the basic need to effect the exchange of raw materials and finished products. However, meeting the demand for transport involves high costs which bear on public spending, business expenditures and family budgets, competing for resources needed for the achievement of other developmental objectives. Expenditures on transport affect, in particular, low-income-family budgets, adding to the poverty burden.

Objective

106. The objective is to satisfy, in a sustainable way, human settlements related energy and transport needs which are essential for development.

Activities: Adopting sustainable energy and transport solutions for human settlements

107. As for other programmes, the result of several activities in the energy and atmosphere sectoral programmes which are found in document A/Conf.151/PC/42/Add.1; Atmosphere: Options for Agenda 21, will find direct application in human settlements contexts.

108. In the area of energy, countries could:

(a) develop national action programmes to promote integrated production of agricultural-waste and biomass energy outputs, and support reforestation and natural-forest regeneration, with a view to a sustained provision of biomass energy to meet the needs of poor households, in particular of women and children;

(b) promote large-scale dissemination and commercialization of mature renewable energy technologies through fiscal measures and internal and external technology-transfer mechanisms;

(c) carry out information and training programmes, directed at manufacturers and users, with the aim of introducing energy-saving techniques and energy-efficient appliances;

(d) adopt energy conservation measures, such as district heating and cooling, to help reduce energy consumption of these resources whilst maintaining the existing quality of life;

(e) develop cooperation in the related fields of energy conservation, energy pricing and taxation as well as in promotion of technology-oriented joint ventures between consumer and producer interests;

(f) international organizations could assist in preparing national energy management programmes; and

(g) developing countries could be provided access to research and development results, to increase energy-use efficiency levels in human settlements.

109. International organizations could provide assistance to developing countries, to enable them to apply, on a large scale, energy-saving and renewable-energy technologies, particularly for the use of solar, hydro, wind and biomass sources.

110. In the area of transport, countries could:

(a) devote priority attention to subnational development planning, local land-use planning and transport infrastructure planning to deconcentrate and reduce transport demand e.g., by encouraging compact rather than dispersed development patterns;

(b) adopt sustainability criteria in their urban transport plans and development programmes. High-occupancy public-transport vehicles can be given preferential treatment in traffic-management policies;

c) encourage non-motorized modes of transport, by providing safe cycleways and footways in urban centres;

(d) devote particular attention to effective traffic management, to efficient operation of public transport and to proper maintenance of transport infrastructure;

(e) establish appropriate national emission standards for new vehicles and ceilings for emissions from vehicles and introduce systematic control of emission levels by vehicles; and

(f) monitor the environmental impact of transport and carry out studies on the quantitative evaluation of this impact, with regard to various transport modes.

111. International organizations could establish financial mechanisms to enable developing countries to build environment-compatible public-transport systems on fair financial terms.

## F. CONSTRUCTION

### Basis for Action

112. Despite the fact that sustained output of the construction industry is vital to the achievement of national socio-economic development goals, including human settlements development goals, construction can contribute to the degradation of the environment, through physical disruption and chemical pollution caused by construction activities. The rapid increase in the volume and complexity of construction, since the early 1950s, and the resource-demanding nature of modern technology have imposed severe stress on the biosphere, through depletion of the natural-resource base, degradation of fragile eco-zones and increases in chemical pollution, underscoring the urgent need for improving construction practices through appropriate policy initiatives and related measures.

### Objective

113. The objective of this programme area of action is to satisfy the construction requirements for the development and maintenance of human settlements in a sustainable way by avoiding harmful side-effects on the assimilative and regenerative capacity of the biosphere.

Activities: Adopting a sustainable approach for the construction sector

114. Sustainable development requires the formulation and implementation of a policy framework for the construction sector that effectively addresses the twin requirements of sustainable management of construction resources and control of degradation caused by the adverse impacts of construction. Implementation of this policy framework will call for concerted and complementary action at the national level, in both developed and developing countries, supported by international cooperation.

115. Developing countries could:

(a) formulate a coherent strategy, at the national level, for indigenization of factor-inputs in the construction sector, in order to optimize the exploitation of the natural-resource endowment;

(b) expand technical-support programmes and incentive schemes for improving the production capacity and economic viability of small-scale and informal operatives who can make use of indigenous materials and methods;

(c) promote appropriate standards, specifications and other regulatory measures, with a view to supporting clean, energy-efficient technologies and environmentally-sound utilization of natural resources; and

(d) formulate appropriate land-use policies and introduce planning regulations specially aimed at protection of eco-sensitive zones against physical disruption by construction activities.

116. Industrialized countries could:

(a) promote the development of databases on the embodied energy and environmental effects of building materials as a first step towards creating awareness among users and policy-makers about their significance in the context of sustainable development.

(b) introduce legislation and financial incentives to promote recycling of energy-intensive materials in the construction industry, and conservation of waste energy in building-materials production methods;

(c) introduce regulatory measures, e.g., certification and eco-labelling schemes for the use of such non-renewable natural resources as tropical hardwoods in construction; and

(d) use economic instruments, e.g., product charges, to discourage the use and consumption of construction materials and products which create pollution during their life-cycle.

117. The international community could support national initiatives of developing countries to achieve sustainable development, through:

(a) local capacity building for environment-impact assessment of construction activities;

(b) transfer of low-waste and non-waste technologies and clean technologies for building-materials production;

(c) transfer of appropriate technologies for resource management in construction, particularly, for non-renewable resources; and

(d) promoting multilateral funding to meet environment-protection expenditures, related to human settlements development, that cannot be independently financed by developing countries.

## G. HUMAN-RESOURCE DEVELOPMENT AND CAPACITY BUILDING FOR HUMAN SETTLEMENTS DEVELOPMENT

### Basis for Action

118. The difficulties faced by the public sector in the developing countries in improving the living conditions of poor in urban and rural areas has led to a concerted search for more effective forms of cooperation among the actors of human settlements development. There is a growing need to encourage sustainable forms of development based on the collaboration between government, the private sector and community organizations. Policy makers responsible for formulating and implementing human settlements strategies must work with communities and their organizations, and establish linkages between physical development, the provision of basic services and community participation. Innovative responses to the capacity building of human resources call for special attention to participatory and gender issues.

### Objective

119. The objective is to create the conditions for the improvement of living conditions in low-income communities, through the human-resource development and capacity-building of all actors involved in human settlements development (public-sector, non-government sector, and low-income community residents), with special attention to gender issues.

120. Another objective is to establish a Human-resource Capacity-building Programme aimed at achieving the above objective in as many countries as possible by the year 2000, though technical assistance from UNCHS (Habitat) and other partner agencies with adequate funding from the international donor community.

### Activities: Mobilizing human resources

121. Countries could establish a policy environment supportive of participatory forms of partnership between the public, private, and community sectors, which could include:

(a) policy workshops at the national level;

(b) the evaluation of the human-resource development activities of existing institutions, with special reference to poverty and gender issues; and

(c) the identification of gaps and needed additional support.

122. Countries could also improve the managerial, technical, and administrative capacities of public-sector institutions and their officials at national, subnational and local levels, including:

(a) the preparation of training materials especially focused on community development and gender issues;

(b) the dissemination of such materials to public-sector training institutions, accompanied by adequate backstopping in capacity-building; and

(c) the direct training of public-sector officials whose activity impacts on community development.

123. Countries could improve the financial, administrative, and technical capacity of communities in planning, improving and maintaining their settlements, including:

(a) training of community leaders, community development councils and other community-based organizations; and

(b) training of technical and social development staff members of non-governmental organizations (NGOs) involved in low-income housing projects.

124. Multilateral and bilateral donors and executing agencies, such as UNDP, the World Bank and UNCHS (Habitat) could assist developing countries in implementing the above activities.

## NOTES

1/ Based on documentation produced by UNDP/World Bank/UNCHS Urban Management Programme.

2/ The "enabling approach": a process in which development efforts are based on constructive partnerships between all actors of development: government, non-governmental (private sector, both formal and informal, non-governmental organizations and institutions, and individual communities). The role of government is redefined as that of a coordinating and facilitating force based on consultation, community participation, accountability, and well-trained and motivated professional cadres.

3/ "People, Settlements, Environment and Development"

4/ United Nations, Population Division

5/ "People, Settlements, Environment and Development"

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# SUMMARY OF RECOMMENDATIONS OF REGIONAL PREPARATORY MEETINGS FOR UNCED

Report of the Secretary General of the Conference

The following is a synoptic summary intended to inform the committee and facilitate its work. It elaborates and expands on the brief information provided in A/CONF.151/PC/41 regarding regional preparations. This paper outlines or quotes the main points from recommendations and findings from three preparatory meetings at the ministerial level held in the regions covered by the Economic Commission for Europe (ECE), the Economic and Social Commission for Asia and the Pacific (ESCAP) and the Economic Commission for Latin America and the Caribbean (ECLAC). This being a synoptic report it cannot fully or accurately reflect the finer points of each declaration and therefore merely serves as a guide to the main regional concerns. The full texts of the regional declarations should be consulted. These have been made available at earlier sessions or may be made available at this session as the case may be.

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A review of the regional preparations and the three ministerial level declarations and related documents from the meetings held in Bergen, Bangkok and Mexico City respectively display a number of similarities and consensus regarding key issues of relevance to the United Nations Conference on Environment and Development. All three regional meetings reaffirmed the United Nations General Assembly Resolution 44/228, which forms the basis for actions undertaken by the UNCED Secretariat and pledged to support the unique opportunity for action that presents itself in the holding of the Conference in Rio de Janeiro in June 1992. All three regions also express concern about and/or endorse or stress the following key issues.

- Concern about the continued deterioration of the state of the environment and degradation of global ecosystems, the major cause being the unsustainable patterns of production and consumption (models of development) that have prevailed particularly in industrialized (developed) countries.

- The declarations further call for urgent action by all countries and the international community to intensify efforts to protect and improve the environment at national, subregional, regional and global levels.

- The particular problems of developing countries must be addressed and since the industrialized countries and regions are the primary sources of environmental damage globally, these countries and regions must also bear the greatest responsibility towards rectifying such damage.

- The declarations stress that the environmental dimension is an integral part of the development process thus making it an imperative for developing countries in addressing sustainable development to have access to environmentally sound technologies and additional financial resources to meet their aspirations to achieve sustainable development.

- The importance of research and development and capacity building is also stressed and the need for active involvement of all sectors of society. There is need to avoid further continued environmental degradation and to have policies based on the precautionary principle.

Since the above comments are common to the three regions they will not be repeated again in the following regional synoptic summaries. The summaries concentrate on the action elements. The three ministerial meetings and their reports/declarations are listed in chronological order.

**The Bergen Ministerial Declaration on Sustainable Development in the ECE Region**

The Ministers in the ECE region met at Bergen, Norway, from 14-16 May 1990 at the Regional Conference on "Action for a Common Future".

This second regional inter-ministerial meeting focused on the following four themes: the Economics of Sustainability; Sustainable Energy Use; Sustainable Industrial Activities; and Awareness Raising and Public Participation.

**Common challenges within the ECE region**

The evolving political and economic processes in Europe will provide new challenges and opportunities for member countries of ECE to co-operate more actively in the actions of Conference on Security and Cooperation in Europe (CSCE) as well as the ECE Regional Strategy for Environmental Protection and Rational Use of Natural Resources.

Member countries of the ECE and the European Community are fully cognizant of their special responsibilities in relation to global environmental problems and are ready to take a lead in the effort towards solving those problems and to assist developing countries in their environmental and developmental efforts.

The Ministers agreed to the following policies, objectives, principles and commitments in support of sustainable development nationally, regionally and globally.

**The economics of sustainability**

- To integrate environmental considerations with economic and sectoral planning and policies and to encourage all institutions to be accountable for evaluating environmental effects.

- To develop sound national indicators for sustainable development and to supplement national accounting systems in order to reflect as fully as possible the importance of natural resources as depletable or renewable economic assets.

- To make more extensive use of economic instruments in a balanced mix of regulatory approaches in order to increase efficiency of environmental protection.

- Such actions would make prices, particularly those related to energy, reflect environmental costs and benefits more fully and would modify production and consumption patterns.

- To work towards a co-ordinated approach by international organizations, particularly the OECD, ECE and EC.

- To support programmes to increase the flow of capital and environmentally sound technology to developing and East European countries.

- To urge donors and multilateral agencies to take into account the relationship between debt service burdens and the ability of countries to ensure the protection of the environment.

- To address the relationship between population pressures and sustainable development.

- To accelerate the interlinkages between environmental and trade policies.

- To encourage public purchasing practices which favour environmentally sound products and services.

**Sustainable energy use**

Taking into consideration that the ECE region presently accounts for about 70% of global primary energy and fossil fuel use, we assume a major responsibility to limit or reduce greenhouse gases and other emissions and to lead a global effort to address this matter by promoting energy efficiency, energy conservation and the use of environmentally sound and renewable energy sources.

- To initiate an ECE wide campaign "Energy Efficiency 2000"

- To continue support for the International Panel on Climate Change (IPCC) as the principal forum for scientific assessment related to climate change in support of the early completion of a framework convention on climate change and the development of protocols dealing with, inter alia, greenhouse gases and forestation.

- To recognize the need to stabilize, while ensuring stable development of the world economy, CO2 emissions and emissions of other greenhouse gases not controlled by the Montreal Protocol and to work individually and collectively towards reducing SO2 and NOx emissions

- To recommend the establishment and implementation of adequate abatement and conservation strategies and to introduce and update an energy labelling system and voluntary agreements or mandatory standards, as may be appropriate for products and processes

- To introduce and update comprehensive policies to remove the existing barriers for energy efficient technology and to fund research and development.

- To reduce the harmful effects of the transport sector

- International organizations are requested to exchange environmentally favourable proposals and to facilitate and support international transfer of technology and environmental technologies and related management skills, especially to developing countries

- ECE members to work collectively towards redressing any imbalances related to renewable sources of energy compared to other energy sources.

**Sustainable industrial activities**

The need to further develop national and regional strategies for preventing pollution from industrial activities:

- To encourage approaches which address minimization of risks to human health and the environment

- To strengthen regulations and economic incentives for promoting environmentally sound production processes

- To encourage the safe and appropriate use and disposal of hazardous substances and to ratify as soon as possible the Basel Convention.

- To encourage investors to apply environmental analysis procedures and the environmental standards required in their home country to investments abroad

- To strengthen cooperation on the prevention and control of transboundary impacts of industrial accidents.

- To strengthen cooperation with industry through mutual consultation with regard to the environmental policies and efficiency of the use of energy and raw materials

- To strengthen sustainability in every sector of production, including forestry, agriculture and fisheries

**Awareness raising and public participation**

Emphasizing the importance of participation by a well-informed and well-educated society

- To promote environmental education, including non-formal education, for all ages and sectors of society and to reaffirm the special role of women

- To stimulate national and international exchanges of environmental information and to encourage the use of schemes for informing the consumer of the environmental qualities and of the risk. To develop rules for free and open access to information on the environment and to ensure that members of the public are kept informed

- To develop further national and international systems of periodic reporting

- To undertake the prior investment and public reporting of the environmental impact of projects which are likely to have a significant effect on the human health and the environment

- To reaffirm and build on the CSCE conclusions regarding the rights of individuals, groups and organizations concerned with environmental issues and in this connection to contribute to the preparation of a document of environmental rights and obligations for possible adoption at the 1992 Conference on Environment and Development drawing on all relevant texts available

- To increase cooperation among representatives of government, international organizations and all sectors of society for achieving sustainable development

**The follow up process**

The governments and the European Community agree to continue to work towards sustainable development not only within the ECE region but also globally, with due attention to the needs of developing countries.

Recognize that the different levels of economic and technological development among the ECE countries are an obstacle to progress within the region. Therefore it is important to accelerate the ongoing process ensuring that assistance to East Europe for environmental purposes does not reduce aid to developing countries.

- Promote active and close co-operation between the ECE and relevant multilateral organizations and institutions and welcome the decision of the European Communities to establish an Environment Agency and a European Environment Information and Observation Network, charged with the collection of objective, reliable and comparable information at the European level.

- Recommend the establishment of Round Tables or Committees or comparable processes to promote the integration of environmental considerations in all economic and social activities.

- Continue to improve national and international processes initiated by the Bergen process with the aim for the early completion, if possible in 1991, of the ECE Convention on environmental impact assessment in a transboundary context and recognize the need to evaluate progress in the follow up to the Bergen Conference.

- ECE members to ratify or accede to the Montreal Protocol

- International programmes, existing institutions and law leading up to the 1992 United Nations Conference on Environment and Development should be strengthened and ECE to prepare a report on the Bergen Conference as a contribution to UNCED 1992.

- Recommend that the experience gained in the preparation and conduct of the Bergen Conference be used by other Regional Commissions of the United Nations and by the Preparatory Committee of the 1992 Conference and welcome the organization of an NGO's meeting to be held in Paris in 1991.

- Governments and others concerned to contribute generously to the voluntary fund established for the purpose of assisting developing countries, in particular the least developed among them, to participate fully and effectively in the 1992 Conference and in its preparatory process.

**ESCAP REGION**

The Ministerial-level Conference on Environment and Development adopted a Ministerial Declaration on Environmentally Sound and Sustainable Development (ESSD) in Bangkok in October 1990.

The Ministerial declaration of October 1990 stressed in brief the following aspects of environment and development issues in the Region, in addition the general issues already mentioned above.

The Ministers of the ESCAP region, representing more than half of the global population recalled resolution 267 (XLIV) of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) adopted at Jakarta in 1988 and the United Nations Development Programme Governing Council decision 90/20 adopted in 1990.

The Ministers, whilst deeply concerned about forest destruction, desertification, watershed degradation, soil erosion, waterlogging and salinization, flooding, destruction of mangroves and corals, loss of biological diversity and pollution of air and water, as well as the ozone layer depletion and the potential rise in the sea level and associated effects of greenhouse gases reiterated that poverty, human health, population pressure and environmental degradation are closely interrelated and must be viewed as an integral part of the development process.

They further affirmed the importance of a proper balance between economic development, population growth, the rational use of natural resources and environmental protection, urging countries in the region to adopt effective and sound population policies.

Whilst affirming that States have sovereign rights, they should not cause damage to other States or areas beyond national jurisdiction.

The special needs of small island developing countries of the region was acknowledged.

The Ministers welcomed the work of ESCAP on a regional strategy taking into consideration existing subregional and national strategies and requested the Executive Secretary in consultation with representatives from United Nations agencies and bodies, multilateral funding organizations and Governments to find ways and means to enhance the effectiveness of cooperation and coordination in the development and implementation of regional environment and development activities.

They also stressed the right of access to information for individuals and non-governmental organizations and to participation and implementation of decisions recommending the strengthening of environment activities of non-governmental organizations, promotion of public awareness and people's participation through initiatives which seek to assist such groups.

Environmental education, and awareness building, especially of the younger generations was necessary and therefore research, training, policy and other institutes/centres should be strengthened and encouraged through information exchange, technical assistance and regional co-operation. ESCAP should play an important role in promoting the formulation of a regional sustainable development network of such institutes/centres also involving UNDP regional resident representatives to better assist in the effective follow-up activities.

**Senior Officials Meeting**

At the request of the ministerial meeting a follow-up Senior Officials Meeting (and its various working groups) was held in February 1991 in Bangkok to consider among other issues a regional strategy paper for the region as well as ESCAP's input to the UNCED process. The Regional Strategy lists priorities and action points based on the State of the Environment report for Asia and the Pacific.

The meeting recognized the need for an appropriate delivery mechanism for implementation of the regional strategy on Environmentally Sound and Sustainable Development (ESSD) through strengthening of the institutional framework, funding support and monitoring and evaluation systems at the national, subregional and regional levels as well as the need for establishing an interagency coordination mechanism at the regional level under ESCAP. Meetings of senior officials on environment and development and ministerial-level conferences should be held on a regular basis. Under the subject of networking between institutions on environment and development it was noted that some of the developing countries in the region possess specialized technologies such as organic farming, desertification control, and development of new and renewable sources of energy.

Without financial resources, the regional strategy cannot be translated into action. Technical assistance should also be tailored in accordance with the specific needs of the recipient countries.

It was also noted that the Global Environmental Facility (GEF) is presently limited to four areas and it was, therefore, suggested that a green or earth fund proposed at the first PrepCom meeting of UNCED in Nairobi should be seriously considered as well as a Regional Environmental Facility with the initiatives of ESCAP, ADB and UNDP.

The meeting suggested that an interagency co-ordination mechanism (Interagency Committee on Environment and Development) be put into operation as early as possible and recommended that all relevant organizations of the United Nations and intergovernmental bodies be invited to join.

As a concrete step towards promoting interagency co-ordination in implementing the regional strategy on ESSD, the meeting noted that UNESCO, UNDP, ESCAP and UNEP have agreed to undertake a joint programme to analyse country level priorities and actions using a comprehensive matrix approach developed by UNESCO.

The strategy has been formulated to respond to the report on the State of the Environment Report in Asia and the Pacific, 1990. While evolving the strategy, it has been recognized that the countries in the region represent a wide diversity in terms of physiographic, economic as well as cultural characteristics. Therefore, it is not feasible to recommend a set of uniform prescriptions. Nevertheless, there are issues of common concern in the strategy and its components.

The strategy is intended for giving an expression to the concern and commitment of the countries in the ESCAP region. The strategy inter alia outlines some of the priority areas in terms of policy imperatives, strategic directions, and action points at the national and regional levels. It is a framework for facilitating preparation of regional, subregional and national programmes recognizing the sovereign rights and responsibilities of states.

While the strategy emphasizes environmental problems which are common to the countries of the region, it recognizes that problems of global nature also need to be considered at the regional level. The framework of the strategy will be flexible and have in-built options for modification in accordance with evolving environmental and natural resource conditions, including possible new threats as well as opportunities and aims to support on-going activities in identifying the priority actions and implementation of ESSD, particularly in preparation for UNCED.

The basic purpose of the strategy is to ensure environmentally sound and sustainable development for survival and improvement of the quality of life for the population in the region. To this end, the strategy is for pursuing development activities in recognition of the fact that poverty and environmental degradation are closely interrelated and that environmental protection must be viewed as an integral component of the development process. The objectives of the strategy include the following:

(a) To foster economic growth and meet the basic human needs through environmentally sound and sustainable development;

(b) To secure integration of environmental considerations into development programmes and activities;

(c) To provide a broad framework of priorities and actions including the setting of time frames at the national, regional and global levels, where appropriate.

The meeting recognized the need of finalizing a substantive regional input to UNCED as soon as possible. The regional input paper should have three annexures - abstract of the State of the Environment Report 1990, the Ministerial Declaration, Bangkok, October 1990 and the Regional Strategy on ESSD. The code of conduct on responsibilities of individuals towards environment, a product of NGO/Media Symposium should be transmitted to the UNCED Secretariat through the Centre for our Common Future.

**Asia and Pacific input to the United Nations Conference on Environment and Development, 1992 Brazil**

All the environmental and developmental issues of global concern as listed in the General Assembly Resolution 44/228 are highly relevant to the ESCAP region although the nature and extent of the problems are varied because of the diversity in terms of physical and socio-economic characteristics among the countries for the region. However, for the purpose of regional input to the preparatory process for the UNCED 1992, the countries of the ESCAP region will, in particular, draw attention to the following issues:

- improvement of living and working environment for the poor;
- protection of health conditions and improvement in the quality of life;
- protection of the atmosphere by combating climate change, depletion of ozone layer and transboundary air pollution;
- protection and management of oceans and coastal areas, rational use of marine living resources;
- protection and management of land resources by combating deforestation, desertification and land degradation;
- protection and supply of fresh water resources;
- environmentally sound management of toxic chemicals and hazardous wastes;
- conservation of biological diversity.

Two of these issues i.e. climate change and biological diversity are the subject of an on-going international negotiation and ESCAP countries are taking an active and positive approach in these negotiations, and draw attention to the desirability of their successful conclusion prior to the UNCED in June 1992.

The countries feel that the need for poverty alleviation is most urgent. Environmental deterioration due to pervasive poverty is a matter of great concern in both rural and urban areas in the Asian and Pacific region. The problem of poverty is so enormous that developing countries of the region cannot solve it with domestic resources alone.

Quality of life and good health depend upon the quality of environment. The number of people in the Asian and Pacific region whose basic needs are not met in terms of proper shelter, clean water, basic sanitation an adequate health and nutrition levels was never so large as it is today.

The countries of the region are seriously concerned by the possible consequences of global warming and climate change which could have far-reaching impacts. The effects of climate change could greatly exceed the financial and technical capabilities of many developing countries for appropriate action. Within the region, priority should also be assigned to monitoring and data exchange of environmental conditions and trends.

The marine environment, the largest portion of which is in the Asian and Pacific region, plays a vital role in the functioning of the biosphere. The most important challenge with regard to the oceans is the establishment and strengthening of environmental management systems of the marine areas and resources through international cooperation.

The impacts of deforestation and land degradation are well known. Deforestation continues because the causative factors are not easily eliminated.

More than one third of the population in ESCAP region still does not have access to safe drinking water supplies. More than three fourths of diseases in developing countries in ESCAP region are directly traceable to unsafe drinking water.

Developing countries of ESCAP region will continue to remain vulnerable to toxic chemicals and hazardous wastes as long as their monitoring and control technologies are weak.

In both land and marine ecosystems, the great loss of biodiversity is a matter of serious concern.

**ECLAC REGION**

**Tlatelolco Platform on Environment and Development**

The ministers and representatives of the Latin American and Caribbean countries members of ECLAC met at the Regional Preparatory Meeting for the United Nations Conference on Environment and Development in Mexico City from 4-7 March 1991 and adopted a declaration referred to as the "Tlatelolco Platform" which expressed the views and decisions of the region. In brief, the platform addressed the following issues. The full text of the "Tlatelolco Platform" has been issued separately as a conference room paper.

In addition to the issues of common concern to all three regions, the ministers gave their unwavering support for the implementation of the Action Plan for the Environment in Latin America and the Caribbean. They also welcomed the document "Sustainable Development: Changing Production Patterns, Social Equity and the Environment" prepared by ECLAC and the report of the Latin American and Caribbean Commission on Development and Environment entitled "Our Own Agenda".

Concern was expressed that 20 years after the adoption of the Stockholm Declaration, there has been a severe deterioration of the state of the environment and a serious degradation of global ecosystems. Such degradation is closely linked to the unsustainable models of development that have prevailed mainly in developed countries. On the other hand significant achievements have been made in the region in consolidating its democratic processes. The causes that have given rise to the economic and social problems in the region, inclusive of the external debt problem, still persist and without a solution to the latter problem the countries of Latin America and the Caribbean will be unable to achieve lasting and environmentally sustainable economic and social development. Environmental issues should also not serve as unjustified barriers to international trade, and international, regional and subregional legal instruments should include provisions for the effective transfer of technology.

The peculiarities and vulnerability of small island States exposed to the global economic and environmental climate, deserves special attention.

There is a need for promotion of scientific and technological research and development aimed at strengthening national and regional management capacities of technologies for sustainable development. Global and sectoral research projects, aimed at identifying the obstacles which impede the development and access to these technologies are important and a special international fund should be set up to ensure that the developing countries receive access to and transfer of environmentally sound technologies and thus permit them to strengthen their capacity to generate their own technologies. It is essential to train human resources in areas related to the management of the natural resources.

Eligibility for funding should not be exclusively based on the per capita income criteria currently utilized by multilateral financial institutions.

The joint fight against poverty, especially extreme poverty, requires profound changes in economic and social policies. These efforts will be successful in so far as they are the result of, inter alia, access to decent living conditions, adequate levels of social organization, political representation and genuine participation of the population in the determination of their own development paths.

Sound management of the natural patrimony is essential for economic growth and sustainable development, and retrospective and prospective methods should therefore be devised for quantifying the value and depreciation of this natural patrimony.

Thus there is need to complement the existing national instruments for environmental control and regulation with measures which incorporate into the decisions of all sectors the social and environmental costs and which help to satisfy objectives of development. Current models of development have failed to take account of the importance of cultures which have evolved outside the framework of such models. The full recognition of these cultures is needed, since they have extensive knowledge of the natural world and its sustainable use and management.

The United Nations Conference on Environment and Development should ensure the observance of principle 21 of the Stockholm Declaration of 1972 on sovereignty of countries.

The following is a summary of environmental issues which are of paramount importance for the Latin American and Caribbean region, and should be dealt with in the Preparatory Committee as well as at the Conference.

**Protection of the atmosphere and climate change**

The Latin American and Caribbean countries bear little responsibility for the emergence of these problems. Their participation should be consonant with the economic and technical resources available. The negotiation of a framework convention on climate change should be aimed at minimizing the anthropogenic causes of climate change and its possible adverse effects. The Latin America and Caribbean archipelagos islands and low-lying countries would be particularly vulnerable to them. The specific role of sources and sinks of greenhouse gases should be determined in accordance with the contribution each of them makes. Any agreement should recognize the need of the developing countries to benefit from their natural resources in an environmentally sustainable way.

Under the Vienna Convention and the Montreal Protocol and its amendments the region should benefit from all the financial and technical assistance needed without being required to contract additional external debt.

**Biodiversity and biotechnology**

The region attaches great importance to the conservation and sustainable management of its ecosystems in order to protects is biological diversity, which constitutes a sovereign part of the national patrimony. Knowledge on biodiversity is part of the patrimony; its use at the international level should therefore be duly regulated and controlled by the country of origin.

Advances in biotechnology and the economic potential for the exploitation of biodiversity make international agreements necessary which include explicit provisions for the equitable sharing of benefits. A convention on the conservation of biological diversity should include obligations for the conservation of biodiversity and should cover the benefits and obligations deriving from biotechnology.

**Protection and management of land-based resources**

Protection and management of land-based resources should focus on integral, forward-looking and long-term environmental planning and management, based on environmental and developmental integration and public utility.

- Forests

  The economic and ecological potential of all forest ecosystems should be a central item in any multilateral measures taken for the environmental protection and support of sustainable ecosystems.

Such measures, not necessarily mandatory, should complement international instruments referring to the forest/climate and forest/biodiversity interrelationships. The measures should provide for economic valuation of forest resources. Trade in timber and non-timber commodities should be from forests under sustainable management.

- Soil degradation: acidification, erosion and salinization

Soil degradation is the consequence of inappropriate styles of development, over-exploitation and, where the peasant sectors are concerned, the need for survival. A greater effort in support of developing countries should aim at the generation and transfer of indigenous and environmentally sound technologies, as well as scientific research, human resources training and financing.

**Protection and management of oceans, seas and coastal zones**

The region has great diversity in marine, coastal and ocean resources. Irrational exploitation and land-based contamination constitute grave problems. Existing instruments must be strengthened.

- An inventory of the region's living and non-living resources is needed and "special areas" on the basis of the characteristics of the resources must be established. Exchange of data, improvement of appropriate technologies, links and relations between regional and sub-regional bodies and programmes as well as scientific, technical and financial capacity and management are all needed. So is the establishment of regional marine technology centres, integrated management approaches, banning of the discharge of toxic wastes, cooperation mechanisms for conservation and awareness promotion.

**Protection of fresh water quality and supply**

Fresh water is vital to the countries of the region. Financing and implementation of plans for administering and managing basins, regional strategies and programmes for water resources, identification of availabilities and potentialities of water resources as well as research and monitoring programmes is vital.

**Eradication of poverty in human settlements**

Expeditious provision of adequate health and education services and the improvement of housing and related services in urban and rural areas are of priority importance. Co-operation in various interrelated aspects of commerce, external debt, additionality of financial resources and technology transfer are key factors to be addressed.

**Urban development and the environment**

Lack of resources, inadequate basic services, and a deterioration of the urban environment characterize many cities of the region. Improving the level and quality of life and new mechanisms for the financing are essential.

**Environmental management of waste, especially of hazardous and toxic wastes**

The regional agreements supplementary to the Basel Convention should receive preferential attention. The Basel Convention should be adopted as soon as possible. A mechanism should be established to prohibit the marketing of harmful or hazardous substances.

The **ECA** and **ESCWA** regions have yet to hold their meetings. The following paragraphs outline regional activities to date.

**Economic Commission for Africa**

The region has witnessed a series of activities undertaken by sub-regional or regional organizations with the full cooperation of the UNCED Secretariat, ECA as well as the United Nations Sudano-Sahelian Office (UNSO). Although UNCED has received financial support for sub-regional and regional level preparations, political and administrative problems have caused delays in the preparatory process. One sub-regional meeting was organized under the aegis of UNSO, CILSS and IGADD to formulate a common approach by twenty-five countries of the Sudano-Sahelian region. Further activities are underway or contemplated in Southern Africa (SADCC) and the Maghreb.

The UNCED Secretariat has extended its full support to ECA for various activities envisaged as inputs into the UNCED preparatory process.

The regional meeting at the ministerial level has been rescheduled to 11 - 16 July 1991 but its preparations have been seriously affected by the recent political changes in Ethiopia. The ECA is also preparing a number of activities to promote the understanding of major issues before UNCED 1992 in cooperation with the United Nations Department of Public Information and the Organization for African Unity (OAU). UNCED also wishes to record that OAU convened a ministerial meeting from 26 to 30 January, the Pan African Regional Conference on Environment and Sustainable Development at which meeting "The Bamako Commitment on Environment and Development" was adopted. Later the 27th OAU Summit held in Abuja, Nigeria endorsed the Bamako Commitment urging member states to contribute significantly to the Rio Conference.

The UNCED secretariat is also lending its assistance to the convening of a Pan African Symposium of Science and Technology in order to help strengthen Africa's capacity in this area related to environment and development.

**Economic and Social Commission for Western Asia**

Due to the recent serious conflict situation in the region the scheduled preparatory meeting at ministerial level has been deferred until

10 -13 September in Cairo. The conference is being held at a time of regional concern about the state of the environment, after the dramatic events in the region. Twenty-one countries from the ECA and ESCWA regions are expected to participate. Among the issues to be discussed are regional perspectives and environmental challenges of sustainable development in the Arab countries in the 1990s and beyond. Critical environmental issues of global dimensions and regional concerns as well as a regional strategy will also be addressed. In addition to policy issues the conference is also going to devote time to technical work.

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# PREPARATIONS FOR THE UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT ON THE BASIS OF GENERAL ASSEMBLY RESOLUTION 44/228 AND TAKING INTO ACCOUNT OTHER RELEVANT GENERAL ASSEMBLY RESOLUTIONS

## Summary of recommendations of regional preparatory meetings for UNCED

## Report of the Secretary-General of the Conference

Further to document A/CONF.151/PC/44 the secretariat wishes in this addendum to outline the activities under preparation in the region covered by the Economic and Social Commission for Western Asia (ESCWA).

### Economic and Social Commission for Western Asia

ESCWA will hold its Regional Preparatory Conference for UNCED at a Ministerial Conference on Environment and Development in Cairo from 10 to 12 September 1991. The ESCWA secretariat has provided the following information to the UNCED secretariat.

> "By its resolution 165 (XV) of May 1989 on Environment and Development, the Economic and Social Commission for Western Asia (ESCWA) decided to undertake preparations at the regional level with a view to

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drawing up a report on the position of the Commission to be submitted to the UNCED in Rio de Janeiro, Brazil (1-12 June 1992). The ESCWA Conference is part of the international follow-up for the report of the World Commission on Environment and Development. The Conference which will include all Arab countries, is also a demonstration of the Arab countries intention to take an active and constructive role in the preparations for the 1992 UNCED. The Arab countries in the ECA and ESCWA regions are committed to support all global actions aimed at environmental safeguards and the promotion of environmentally sound and sustainable development. In this context, and since March 1991, ESCWA has held three preparatory meetings for convening the Ministerial Arab Conference on Environment and Development (Cairo 10-12 September 1991). The Conference is expected to discuss, amend and adopt the following documents:

(a) Arab perspectives of environment and sustainable development. This document is based on numerous sectoral studies where the dimension of environmental degradations in the Arab countries has been identified. Among resources discussed are human resources, agricultural, natural and water resources. In-depth assessments are made of energy resources, industrial developments; coastal resources and marine environment; human settlements, public health and environmental services. The report focuses also on the environmental crisis in the Arab countries and sheds particular light on the roots of the problem such as hampering economic policies; lack of environmental legislations; institutional mismanagement; environmental illiteracy; environmental contradictions of poor and affluent societies in the region. It also elaborates on the effect of war and regional conflicts on environment. In this context, the challenges of the 1990s and beyond are identified to include sectoral activities including: population, human settlements, industrialization, etc., where the unsustainable policies of such activities are underlined for national and regional policy actions.

(b) The second document focuses on an Arab strategy on environmentally sound and sustainable development. In this context reference is made to the broad objectives for an Arab strategy to protect environment. Accordingly, the strategy is expected to be translated to concrete plan of action regarding the following priorities in the Arab countries.

(i) Protection of water resources and their conservation;

(ii) Support of agricultural resources and food production;

(iii) Management of industrial waste and hazardous chemicals;

(iv) Human settlements and environmental management;

(v) Sustainable energy use and applications of renewable sources of energy;

(vi) Interaction between man and his environment;

(vii) Regional and global environmental cooperation.

(c) The third document will contain a declaration on environment and development addressed to UNCED."

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# POVERTY AND ENVIRONMENTAL DEGRADATION

## Report of the Secretary-General of the Conference

1. The Preparatory Committee, at its second session, in decision A/CONF.151/PC/L.36, requested the Secretary-General of the Conference to continue work on cross-sectoral issues and develop proposals in greater depth for the third session of the Preparatory Committee. The present document takes account of the reports specially prepared for UNCED by FAO, ILO, UNFPA, IFAD and those prepared by the International Institute for Environment and Development (IIED) for the Swedish International Development Authority and UNDP. 1/ In addition, it takes into account the recommendations of the UNCED/UNICEF/UNFPA Symposium "Women and Children First" as well as the various inputs received by UNCED from indigenous groups and NGOs.

2. The analysis presented in the document on Poverty and Environmental Degradation discussed at the second session of the Preparatory Committee (A/CONF.151/PC/15) had focused attention on the macro-economic context within which development is taking place, global demographic trends and access to means of livelihood and sustenance. As was argued in that document, international initiatives for arresting the reverse transfer of resources, providing external assistance and structuring technical cooperation to build human and national capabilities, along with national policy framework that ensures macro-economic stability, promote efficiency in the use of resources and reduces vulnerability to internal and external stress, are especially

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important for poverty alleviation and human development. This paper does not focus on these broader issues of development policy and deals essentially with more specific interventions directed at the redressal of poverty and unemployment and the alleviation of demographic pressures.

WHO ARE THE POOR?

3. An income level below which minimum nutrition and essential non-food requirements are not affordable constitutes poverty. Measured in terms of dollars, the world has 157 billionaires, some 2 million millionaires and more than 1.5 billion people living in wretched poverty, garbage dumps, shanty towns or resourceless rural areas. But poverty is far more than an economic condition. It extends to all aspects of individual life: physical weakness and sickness, no access to most essential services, lack of information, limited control over resources, subordination to and exploitation by higher social and economic power, extreme vulnerability to sudden stress, insecurity in the face of changing circumstances, erosion of human dignity and self-respect, social and cultural marginalization. The poor are often different in color, socio-ethnic group, tribe or religion from the dominant wealthy groups. Powerlessness, in industrialized and developing countries alike, is one of the most dominant characteristics of destitution. The poor lack access to centers of influence and are ill represented in the government. In many countries, there are no appropriate institutions for mobilizing the interests of the poor, be they political parties or NGO's. The consequence of this is the inability of the poor to take initiatives to improve their welfare without outside support, even though what is required may be very modest.

4. The poor are more likely to be female than male, particularly in urban areas. There is no doubt that life is harsher for poor women than for poor men. They are paid less than men and work more, one to three additional hours each day. They are less educated and bear greater responsibilities for the rearing of their children. Female headed households are highly represented among poor households. But the biggest single group of poor is children whose prospects are even worse than for their parents. Two-thirds of the world's absolute poor are under the age of 15. A significant proportion of them is physically stunted and mentally impaired as a result of chronic hunger during the critical age of 6 months to 2 years. In 1990, it was estimated that more than 300 million children under 14 years were serving as cheap labor in mines, cottage and industrial enterprises all over the world, in very unhealthy conditions, while most of the time their fathers were unemployed. 2/ Despite rapid urbanization and growing urban poverty, the majority of the poor, for the moment, still live in rural areas.

5. The poor are estimated to comprise 25 per cent of the total population in Asia, 62 per cent in sub-Saharan Africa, 28 per cent in North Africa and the Middle East and 35 per cent in Latin America. On the whole, one person out of four lives in poverty. In sub-Saharan Africa, small holders constitute the major part of rural poor in most countries. In Asia, the poor include the landless and the near landless - who constitute the largest sub-group - workers, households engaged in specific trades and artisanal fishermen. In the Near East, the poor are landless laborers, small-holders, pastoralists, artisanal fishermen and women. The people with the lowest income are the

nomads and agropastoralists who practice dryland farming. In Latin America and the Caribbean, most of the poor are found in urban areas reflecting the accelerated urbanization process underway in the region. In industrialized countries, poverty, although far less severe, has increased during the eighties, particularly in the USA, the United Kingdom and Eastern Europe. 3/

6. The rural poor are increasingly pushed either to the cities or to poorer land. They tend to be concentrated in fragile regions where land is least productive and tenure rights least secure: arid and semi-arid lands, mountains slopes, tropical forests. The proportion of the poor living on marginal or fragile land is estimated at 47 per cent; at today's continuing rapid rates of population growth and densities, the preservation of these fragile environments is a huge challenge.

## THE MULTIPLE DIMENSIONS OF POVERTY

7. Poverty exists in industrialized and less developed countries, although with a fundamental difference: in industrialized countries redistributing income would leave everyone comparatively well off; in less developed countries it would leave everyone poor, 3/ thus indicating that the lack of sufficient per capita economic growth is an important reason for the pervasiveness of poverty. The reasons for poverty lie both in domestic constraints and policy deficiencies and in international economic processes which have contributed to oppressive debt burdens, high interest rates, falling export prices, limitations on access to markets, and other economic processes affecting negatively the capacity of these countries to develop and raise the standard of living of their growing populations. In industrialized countries, poverty results mainly from a lack of appropriate domestic economic and social policies.

8. In terms of wealth, there is a wide gap between nations. Seventy-seven per cent of the world's population earn a mere 15 per cent of its income. Although several developing countries have achieved significant economic growth during the last decade, poverty remains a major problem. Documented case studies confirm that, at the national level, the poor have borne the brunt of economic hardships. Disparities of income have widened since the early seventies, reversing earlier improvements. In many developing countries, national budgets have tended to favor industrial over rural development and military over social expenditures. 4/ At the same time aid for development assistance for poverty related activities has fallen well short of need. Within sectors resources are distributed in a manner that could increase inequalities: roads and irrigation canals tend to be built in the more prosperous regions first, reinforcing their initial economic advantages; electricity and piped drinking water tend to be concentrated in areas of cities where residents own their homes; higher education receives disproportionately more money than primary education.

### Urban poverty

9. In the last 15 years, the number of urban poor has increased by 81 per cent in Africa and 55 per cent in Asia. In Latin America, the number of urban poor have more than doubled. 5/ Basic services are totally inadequate: the poor lack the most elementary infrastructures which would

enable them to preserve their immediate environment: clean water, sewage systems, garbage removal, etc. There is a need for new, low-cost solutions to these problems.

10. The urban poor suffer environmental abuses and pollution caused by others. The disproportionate exposure of the poor to pollution and hazardous material has gone almost unmeasured in developing countries. A study of the United States economy indicates that three-fourths of hazardous waste landfills in the southeast are in low-income neighborhoods, and more than half of all Afro-Americans and Hispanic-Americans live in communities with at least one toxic waste site. 3/ Migrants working on farms, especially women, are exposed more than others to toxic pesticides which have been proven to create miscarriages or birth deformities.

11. High population growth rates and rural-urban migration which prevail in developing countries will continue to place a great stress on cities, and on their already over taxed infrastructures and facilities. Because cities have a great role to play in offering non-farm employment, in alleviating the pressure on land, in generating wealth, in widening the national market, and in creating a socio-economic context favorable to the demographic transition, they need to receive much more attention from policy-makers, development planners and donor agencies than they do now. Development policies should aim at establishing a better urban environment for the poor and providing them with greater economic and social opportunities. In the framework of sustainable livelihoods, the urban poor need to be a major target group. Among them, women who migrate and women who are heads of households need attention because they tend to be more marginalized and vulnerable than other sub-groups.

Rural poverty

12. Although rural poverty can be seen from different points of view, landlessness appears to be its major feature. Because the poor are resourceless, their prospects for income and employment are often measured in terms of the fertility and the productivity of their physical environment. In a context of land degradation, soil erosion, deforestation, desertification and scarcity of freshwater, the poor are in danger of becoming poorer as their environment continue to degrade. Precisely because they are poor and so bound up in the day-to-day struggle to survive that they cannot afford the labour or the foregone production for the conservation measures that would help preserve their resources. Furthermore, this often takes place in a context where the technological responses and the enabling socio-economic environment for these responses are lacking. At another level, the development process tends to exclude the poor through policies which reinforce their marginalization and dependence.

13. Population pressure is a major factor which aggravates rural poverty. In order to meet increasing demands for food, fuelwood, water and other essential resources required by increasing populations, the poor are forced either to increase exploitation of available land, overusing it, or expand the surface of land under cultivation (when there is land available), or when there is no other solution, move on to even more marginal lands, thus accelerating the degradation of already fragile ecosystems. Population growth, and its various

implications, changes in population density and internal distribution, has greatly influenced land use patterns and agricultural production in ways which are associated with the deterioration of the quality of the land. The increase of cultivated land, the clearing of new lands by migrants, the fragmentation of landholdings to a size that can no longer support a large family, soil erosion, reduction in fallow times, increased cropping intensity and land conflicts are found to be linked, in an increasing number of cases, with population pressures. 6/

## THE LINKAGES BETWEEN POVERTY AND ENVIRONMENTAL DEGRADATION

14. Looking at the linkages between poverty, environmental degradation, population trends and development, there are two different sets of problems which should not be confused. One is the influence of population on consumption of renewable and non-renewable resources. In this respect, the relatively small population in the industrialized countries continues to have by far the greater impact though of course, as they develop, low income countries will represent an increasing amount and an increasing proportion of world consumption. The other major problem is that rapid population growth tends to both strangle the infrastructure and do great damage to the resource-base of a country. The fast-growing populations of developing countries have for the moment a limited influence on global environment issues but their own development is made more difficult by rapid population growth. As demographic pressure builds and mushrooming demands are made to satisfy basic needs, consumption, income and food security, there is every reason to anticipate depletion and degradation of the resource base in these countries. Both groups of countries will have to redesign their futures to aim for adequate standards of living with radically less per capita consumption of environment-damaging goods by the higher income groups.

15. Given the variety of factors contributing to environmental degradation at the global, regional, national or local level, it would be an oversimplification to say that poverty is the only cause of environmental degradation. In reality, there seem to be different types of poverty/environment linkages namely where: poverty is a major underlying factor; poverty is a proximate cause of environmental degradation but failure of policies, markets and institutions are the major underlying causes; the opposite of poverty, wealth - or a certain type of development - is the primary cause of environmental degradation. In the latter case, poverty is exacerbated as a result. The same distinction can be made about population growth. There are cases where population pressure leads directly to environmental degradation and increased poverty, cases where it is a proximate cause, and other cases where the causes of both poverty and environmental degradation are found in economic and social policies, with population growth therefore playing the role of an exacerbating factor.

16. The population and natural resources equation cannot be treated as a one-to-one relationship. According to some scientists, how population pressures affect natural resources in a certain region depends on the following five interacting variables, which themselves vary significantly according to local policies and to the level of socio-economic development of the region:

- the absolute number of people using the resources;
- the level of the local populations consumption of environment-sensitive goods;
- the type of practices used to harvest or protect resources;
- the extent exports result in loss of the natural resource base;
- the resilience of nature itself.

In global terms, the rate of natural resource consumption depends on the first three variables, while the added element of nature's resilience will determine the ultimate rate of resource depletion. 7/

17. In most developing countries, the present demographic trends constitute an additional constraint to sustainable development at the national and household levels: population growth rates and dependency rates are high. Developing countries have yet to complete the main phase of their massive population growth: between 1950 and 1985 they increased by about 2 billion people, whereas between 1985 and 2025 the increase is estimated to be about 3.5 billion. 8/ In this period, the population of developing countries will again more than double.

18. For total developing world, the number of people working or seeking work in 1990 was estimated to be 1.8 billion; of these, the total unemployed and underemployed exceeded half a billion persons, or almost as many as the entire workforce of the industrialized world. Because of the sheer increase in human numbers, the 1990 workforce is projected to grow to 2.1 billion in 2000 and 3.1 billion in 2025. Every year during the 1990s, the developing countries must create an average of 30 million new jobs just to prevent unemployment from growing worse. Latin America must create a number of jobs equal to 230 per cent of what the United States achieved during the past two decades. In sub-Saharan Africa, unemployment and underemployment run at a level of at least 40 per cent. The region will have to create annually 6 million jobs during the 1990s and 10 million throughout the first quarter of next century, merely to keep abreast of the tide of young adults entering the workforce. 9/

19. There is a close link between food security, sustainable agriculture and population growth. Rapid population growth tends to decrease labor productivity in agriculture. A recent case study shows that a 10 per cent reduction in farm size due to population growth results in a 3.6 per cent decrease in labor productivity. 10/ Excessive population growth also reduces the pace of transformation of the economy from a traditional agriculture economy to a surplus food production and industrial economy, and hence discourages growth in per capita income, in food intake, and in nutritional status.

20. Between now and 2025, adequate food, shelter, services and jobs will have to be provided to 7 or 8 billion people who will be living in the developing world, thus challenging the ability of governments to satisfy the basic needs of their population without irreparably damaging the natural resource-base of

their countries. The enormity and urgency of the tasks ahead are underscored by these population projections, the recognized linkages between population factors, environmental conditions, and all aspects of socio-economic development. A constant stream of warning is also found in declarations and statements: the International Development Strategy for the Fourth United Nations Development Decade; the Declaration of the Eighteenth Special Session of the General Assembly and the Second UN Conference on the Least Developed Countries. This view is increasingly shared by many of the scientific, 11/ the business 12/ and the NGO communities 13/ of both developing and industrialized countries. The Report of the South Commission states: "In sum, a strong committment to slowing down population growth through integrated population and human resource planning can bring large personal and social benefits in most developing countries. High priority for the improvement of child survival rates, expansion of female education, improvement in the economic and social position of women, and the rapid extension of family planning services are the key strategic elements". 14/

NGO perspectives

21. In the framework of a workshop organized by UNDP, some NGOs have expressed their concerns about poverty. They share a broad view of poverty encompassing the loss of cultural identity, traditional knowledge and practices. For most NGOs, inequitable distribution of benefits, the international economy and aid system, inappropriate investments and technologies (growth-oriented, mega-projects) have contributed to destroy people's livelihoods and environment. They also note that poverty is related to the fragility of democratic processes, local communities having only a marginal role within their national political structures. 1/

22. These NGOs advocate a new set of policies to tackle poverty and environmental degradation that would empower the people in order that they identify their own problems and design their own solutions. They also recommend local solutions adapted to specific ecosystems and cultural values, and propose to focus on small-scale and locally centered subsistence economies. The role of the NGOs is therefore to help the poor in this process. NGOs are aware that no one has a monopoly on the solutions to poverty and environmental issues. However, their experience at the local level gives them a legitimate say in the design of policies. This places new demands on their ability to articulate coherent and workable alternatives.

OPTIONS FOR AGENDA 21

23. A major dividing line falls between the countries experiencing positive development where the economy is improving, per capita income and food production are growing, and people are becoming better-off, and the countries that are becoming poorer, with decreasing per capita food production and a deteriorating resource base. The latter are caught often in the vicious circle of a declining economy, increasing population and environmental degradation. Strategies to tackle poverty should embrace all three dimensions of the problem.

24. Four major objectives must be reconciled: alleviate poverty and re-establish human dignity; improve equality of opportunities between people

and nations to prevent waste of human creativity and potential; allow all groups of people to live in harmony with their cultural and spiritual values, with a sense of responsibility towards nature, other populations and future generations; ensure that human numbers and activities are compatible with the resources of the earth, and that they do not overtax the resilience of nature. At the international level, policies to tackle poverty must be rooted in a more balanced economic system; at the national level, they must combine growth with equity in macro policies and planning. There should not be any contradiction between policies that promote development, that improve the livelihood of the poor and that protect the environment.

25. This paper does not deal with the broader macro-economic context of poverty. It focuses on specific measures that seek to tackle the problem of poverty directly. These measures cover four broad programme areas: promoting sustainable livelihoods, ensuring sustainability between population and resources, developing human resources and ensuring a habitable living environment for the poor. The latter two, though listed here are covered more extensively in the Options for Agenda 21 presented in the documents on:

(a) HEALTH (A/CONF.151/PC/54)

(b) ENVIRONMENTAL EDUCATION (A/CONF.151/PC/55)

(c) HUMAN SETTLEMENTS (A/CONF.151/PC/56)

26. Programmatic measures for the pursuit of sustainable livelihoods and poverty redressal have to be seen in the context of the option for action dealt with under land, freshwater, forests and oceans.

## A. PROMOTION OF SUSTAINABLE LIVELIHOODS

### Basis for action

27. An environmental policy that focuses mainly on the conservation and protection of resources without regard to the livelihoods of those who depend on that resource for living will have an adverse impact on poverty. Equally, development policy which focuses mainly on increasing the production of goods without concerning itself with the long-term potential of the resources on which production is based will sooner or later run into problems of declining productivity which also will impact adversely on poverty. An effective strategy to tackle problems of poverty, development and environment simultaneously in developing countries should begin with focus not on resources or on production but on people. The objective of providing sustainable livelihoods for all could provide an integrating factor which allows policies to address issues of resource management, development and poverty eradication simultaneously.

### Objectives

28. The promotion of sustainable livelihoods has to become a part of the mainstream of growth and development strategy. The target group orientation of anti-poverty programmes and the resource management dimensions of area

development programmes must be combined into an integrated programme that simultaneously addresses both sets of issues. The objectives of such an integrated programme would be:

1. The generation of remunerative employment and productive occupational opportunities (farm and non-farm) on a scale sufficient to take care of prospective increases in the labour force and to cover backlogs from the past;

2. The development of infrastructure, marketing systems, technology systems, credit systems, etc., to support this as also to ensure a widening of options for resource poor households;

3. Substantial increases in resource productivity and measures to ensure that the local population benefits in adequate measures from resource use;

4. Rehabilitation of degraded resources and policy measures to prevent unsustainable resource use;

5. Development of mechanisms for public participation, particularly by poor households, to ensure sustainable development.

29. Specific targets to reflect the above objectives would have to be articulated in terms of the coverage of poverty groups as well as coverage of ecologically vulnerable areas. The Preparatory Committee may wish to consider the following options:

- All households below the poverty line to be provided with an opportunity to earn a sustainable livelihood by the year 2000.

- All ecologically vulnerable areas, to be covered by integrated programmes of resource management, poverty redressal and employment generation by the year 1995.

Programme Activities

30. The programme activities that would contribute to the promotion of sustainable livelihoods would cover a wide range of sectoral interventions. In its general design, this program should be regional as well as country specific. It should also be geographically and ecologically specific, taking into consideration the physical characteristics of the ecosystem concerned. It should be aimed at specific target groups such as the poor smallholders or landless households, women, indigenous communities, migrants and refugees. The programme should contain immediate measures to alleviate poverty as well as a long-term strategy aiming at establishing the best conditions possible for a sustainable national development that would eliminate poverty, reduce the inequalities between the various groups of the population while improving the overall socio-economic conditions of all people. The focus here is on specific measures that cut across sectors and focus on target groups and target areas. In what follows these are described first followed by a description of activities that would widen options for poor households and reduce vulnerability.

Target Groups

31. Among the poor, it is possible to distinguish a great number of sub-groups representing various forms and degrees of destitution. At the bottom of the ladder we find those who have nothing, those who are completely destitute; then we find those who have a small piece of land or a small property but live in a precarious social, environmental and financial position. Next, we have people who can manage in normal periods but who do not have enough resources to face a personal crisis or unexpected situations like drought, flood or any other dramatic event. Some are vulnerable all the time such as refugees, some are so only under certain circumstances like structural adjustment periods, while others need occasional help during critical phases of their life, for example on marriage or when first settling on a farm. The programme aiming at achieving sustainable livelihoods should address these specific situations and needs in an appropriate manner.

32. Those who are at the very bottom of the economic ladder are defined as those who spend 80 per cent of their income on food but still lack sufficient calories to meet their metabolic needs. This group accounts for perhaps one-third of the absolute poor. They need direct and immediate assistance just to survive. Women, indigenous communities and those who are left out by the processes of development should receive special attention. Whenever possible, help should come in the form of access to resources and jobs because subsidies tend to deprive people of skills, and ultimately, productive employment appears to be a better way of achieving long-term food security and restoring human dignity.

33. As environmental degradation deprives women and their families of important natural resources, their position becomes increasingly difficult. In many countries, particularly in the African region, women are the most involved in cultivation of food crops, in fuelwood, water and fodder collection, in addition to their responsibilities in rearing the children. They are major potential partners in conservation action programmes and should be provided with appropriate training and information in order to play fully their roles as agents for change. The division of labour by gender, the different roles played by men and women in the economy and the specific socio-economic constraints faced by women should be taken into account in programmes aiming at preserving the environment. Anti-poverty programmes should pay attention to women's special needs for remunerative activities, control of income, training and technologies both to ease their burden and to increase the productivity of their work. Sustainable livelihoods programmes should promote equality between women and men in access to property and credit, and in all other rights.

34. There are some 5,000 different indigenous peoples in the world, totalling about 300 million (4.8 per cent of the world population), living in around 70 different countries. Their lands and territorial basis worldwide are increasingly under threat because of rapid penetration of logging, ranching and mining enterprises, the growing pressure of migrants searching for farmland, large-scale government development programmes, agricultural modernization and huge hydroelectric projects. Often, they have been displaced from their original communities to regions with different ecological conditions. Although certain countries have recognized indigenous customary

rights and restricted land alienation through special forms of land ownership under the control of the state, these provisions have been insufficient or have remained largely ineffective. Since land is the main source of subsistence and the core of the spiritual values for most indigenous people, the loss of control over their traditional territories severely affects their livelihood and culture. Sustainable livelihoods programmes should address this central issue in its full dimension.

35. The most notable change in international migration during recent years has been the rapid increase in the number of refugees. In addition to people with refugee status, perhaps another 15 million people are displaced within their own countries. The phenomenon derives from civil or armed conflicts, population growth and environmental run-down, leading to an extreme degree of human deprivation. Among the least developed countries, refugee movements are the main type of recorded international migration flow. Developing countries often play a dual role, as both origin and destination of refugees. Refugees have to be treated explicitly as a target group in designing sustainable livelihood programmes.

Target Areas

36. In order to achieve sustainable livelihoods for all groups of people and especially for the most vulnerable ones living in ecologically endangered areas, operational strategies that consider the very specific characteristics of the ecosystem on which the target group live are required. The ecosystem strategy can provide a satisfactory approach if it also addresses the problems of sustainability through their social, demographic and cultural determinants, and through the existing institutional constraints.

37. In principle, all areas in the developing country should be covered with such integrated programmes for promoting sustainable livelihoods. However, in practice, this would remain a long-term objective and some specification of priority areas where action would have to begin immediately is necessary. In addition, it is also important to identify categories of areas where taking an integrated view of the local ecosystem in relation to the needs that people have for sustenance and livelihood is critical. This means that the focus has to be first in those areas where it is the deterioration or low productivity of the resource base which is the primary constraint on the widening of options for poor households.

38. The primary criteria for the identification of target areas must be specific indicators of the incidence of poverty and of environmental stress. A prioritized specification of the types of areas where poverty and environmental stress would tend to be high as measured by the indicators is difficult. However, it would appear that such areas would include for instance desert and drought prone areas, certain types of coastal areas, mountain environments, urban slums, areas in and around degraded forest lands, flood plains of large river systems particularly those with a big amplitude between big and low season flow. Such a preliminary identification may be useful for purposes of designing the diagnostic surveys should be necessary as a first step in programme specification. However, the real need is for identifying areas in terms of an objective set of indicators.

Income, Employment and Assets for the Poor

39. In order to raise incomes, more sources of gainful employment within and outside agriculture must be created for the poor. In already over-exploited areas, off-farm employment must be promoted such as food processing, labour-intensive rural works, trading, cottage and other industries. Absorption of labour in non-farm activities is essential for raising labour productivity and incomes in agriculture. It would also lessen the pressure on vulnerable areas and contribute to environmental objectives and sustainable agriculture. The major actions proposed by FAO and spelled out in the Den Bosch Declaration are very relevant in this context (see A/CONF.151/PC/61).

40. In terms of economic security, what different classes own is as important as what they earn. Although reliable information is exceedingly scarce, the disparity in the distribution of wealth appears to be wider than the disparity in the distribution of income. Landlessness is widespread in many developing countries. It reflects the lack-of-work issue and the lack-of-land issue, both exacerbated by inadequate socio-economic infrastructure and an inadequate natural resource base, in the face of unprecedented population growth. Both issues lead to increasing numbers of marginal people with no alternative but to migrate to cities or to marginal environments. The typical poor person is no longer a subsistence farmer but a dispossessed laborer. One observer notes that in 1981, the number of landless rural households in the world has been estimated at 167 million - numbering 938 million people - and is expected to rise to 220 million households by the turn of this century. 3/

41. In order to improve access to productive resources, land tenure systems and land property rights must be reviewed. Poor people's control over trees is particularly neglected. Trees are also economic assets that provide a flow of benefits such as fruit, fodder, shade, soil regeneration, construction materials and fuel. Like other assets, they can be sold in times of need, a use growing in importance as the poor lose their traditional safety nets and become more vulnerable. 3/

42. Credit is crucial to enable the poor to accumulate assets and to undertake measures to protect the environment. Innovative approaches drawing on informal financing systems and group credit approaches could be developed. However, the programmes undertaken so far have generally not been successful in extending credit to significant numbers of poor, repayment rates have been low. Interesting schemes have been developed for very low income people (eg. the GRAMEEN Bank in Bangladesh) which should be examined and replicated.

43. The measures required to tackle urban poverty are qualitatively different. The issue here is not necessarily one of asset redistribution or resource rehabilitation though that is an important role in a few specialised contexts. The principal requirement as far as urban poverty is concerned, is to increase the rate of growth of non-agricultural employment (including self-employment) and even more important, protect and enhance earnings from such employment particularly in the informal sector. The interventions required for this purpose relate mainly to measures which recognise the role of the informal sector in providing opportunities to the urban poor in creating the support system often through NGOs to ensure minimum wages and acceptable conditions of work for employees in the informal sector, to provide

the self-employed with assistance in input supply, marketing and credit and to integrate the activities of the informal sector into the mainstream of economic and physical planning in urban areas. Certain categories of informal sector work has very intimate links with environmental management of urban areas. Many informal sector workers are involved in reprocessing of materials which would otherwise become waste. These activities, if supported adequately would provide not merely an avenue of employment to the poor but also facilitate the environmentally important task of recycling.

Resource Management for Income Growth

44. Sustainable livelihood programmes would be particularly important in areas which are environmentally stressed. Hence, apart from the household oriented interventions directed at poverty redressal and employment creation, it is important to have a set of interventions which are specifically directed at resource management. The basic framework for such resource management has been described at some length in the discussion of the integrated management of land resources in A/CONF.151/PC/63 and also in the options for Agenda 21 for land, freshwater, oceans and forests. The specific requirement in the context of sustainable livelihood projects or programmes is to ensure that such resource management measures take place in a manner which allows them to be integrated fully with the household oriented effort at poverty redressal and employment generation which has been described above.

45. In rural areas, the basic approach would be to identify the production and employment potential of a region which can be sustained without causing any deterioration of resources, and in fact, with some significant component of resource enhancement. It also requires that attention be focused not merely on the availability of the resource, but how access to that resource is distributed amongst the people who depend on it for a livelihood. Resource use should be looked at and planned as a system so that field crops, tree crops, animal husbandry, fisheries, forestry and all allied activities are looked at as an integrated set of activities. Moreover, the balance between resources and people in a region may also require special measures for the promotion of non land-based activities in small industry services, etc.

Ensuring Food Security

46. Food security has been defined by FAO as the physical and economic access, by all people and at all times, to the basic food they need. For IFAD, food security is basically a question of entitlement to food through means of production and through productive employment. It depends as much on purchasing power and entitlement as on production and supply. Food security is not merely a question of producing more food but ensuring that the poor have access to it: national self-sufficiency in food production does not guarantee by itself the availability of food to the poor. There is a close link between food security, sustainable agriculture and population trends.

47. In order to improve food production, appropriate infrastructure, services and resources, together with environmentally compatible technologies, must be provided to the poor to enable them to increase output without damaging their environment. This is dealt with in the document on Sustainable Agriculture and in the Options for Agenda 21 relating to Land. However, in many

ecologically vulnerable areas, food production is prone to large fluctuations leading to short-term stresses which can reach famine propactions. Effective arrangements for coping with such periods of stress are a crucial component of food security.

48. The stability in the flow of supplies and access to available supplies on the part of those who need them must be achieved. The management of stocks by the state, by the community, by the household and by the traders must be organized in such a way that food is always available at accessible prices at all times and for everybody. The Comité Intergouvernemental pour la Lutte contre la Sécheresse au Sahel notes that population at risk or specific groups at risk within a given population must be identified and followed-up closely if food security for all is to be achieved. Landlocked and remote areas must be made easily accessible by appropriate infrastructure and transportation services.

Action at the International Level

49. The implementation of an integrated programme of the type described above would, of course, require action mainly at the national and local level and the primary function of the international community would be to provide the financial assistance required to enable countries to pursue ambitious programmes for this purpose particularly in ecological disadvantaged areas to create facilitating mechanisms for the exchange of experiences and to ensure a measure of coordination in the flow of assistance for this purpose.

50. The financial assistance provided by bilateral and multilateral donors subserves a variety of purposes. Identifying the proportion that contributes directly to the reduction of poverty is difficult. It is worth noting, however, that in 1988, about 41 per cent of aid was directed to middle and high income countries, and that there are great disparities in per capita allocation of aid. A focus on poverty and sustainable livelihoods requires a commitment to enhance greatly the flow of assistance to low income countries and for projects and programmes directed at development of ecologically stressed areas. The Preparatory Committee may wish to consider recommending that the flow of aid in these specific categories should be at least doubled within a period of five years.

51. An integrated approach to poverty redressal and resource management will require a flexible approach with a long-term horizon focusing on small and location specific solutions. A facilitating mechanism to allow for a systematic review of experiences at the country level and the exchange of such assessments would be of particular value. The Preparatory Committee may wish to consider whether a specific agency could be charged with the responsibility for this purpose.

52. A coordinated approach to poverty redressal involves action not merely on anti-poverty programmes but on a variety of other matters including sectoral programmes on agriculture and land development, urban development, water resource development, small industries, etc. There are also social dimensions involving the role of indigenous communities, the position of women, and so on. A large number of agencies in the UN system would have activities which impinge directly or indirectly on this task. The Preparatory Committee may

wish to consider whether a mechanism should be set up under the Secretary-General of the United Nations so as to coordinate and implement what could be, in effect, a United Nations Plan of Action on Poverty.

53. Food security is the main source of vulnerability for poor households in ecologically stressed regions. The international community could play a major role in developing long-term and predictable arrangements to reduce the risks of stress in food availability and provide emergency assistance quickly when required. Certain components dealing with international assistance for food productions programmes will be addressed in the context of the discussion on Options for Agenda 21 on Land. In the context of this paper, the Preparatory Committee may wish to consider strengthening present arrangements for identification of areas of stress, coordination and financing of assistance, standby capacities by way of stocks, resources and personnel at the international level.

B. REDUCTION OF DEMOGRAPHIC PRESSURES

Basis for action

54. The present demographic situation and projected trends for the coming decades clearly show that there will be an intensification of the problems associated with rapid population growth such as migration, imbalances in population distribution and rapid urbanization. Countries that are in the process of positive development generally have low population growth rates (2 per cent per year, or lower) while countries trapped in the downward spiral of poverty have a population growth of 3 per cent, or more. Often, these countries also face serious problems of environmental degradation. Population is one of the major development factors where developing countries have a real opportunity for change in a relatively brief period and at a relatively low cost.

Objectives

55. A programme dedicated to tackling at the same time poverty and environmental degradation could have the following objectives:

- intensify population programmes consistent with the socio-cultural milieu of each country;

- achieve an optimal balance between population and resources through improved planning mechanisms at the national level.

Activities related to population programmes

56. A reduction in population growth rates would make it easier to accelerate development and ensure sustainability in many countries. Over half of the developing countries are pursuing active policies towards this end. The International Development Strategy for the fourth United Nations Development Decade suggests that developing countries should "intensify their efforts to allocate adequate resources to population programmes" and also calls for an increase in assistance to developing countries in this area. The plan of action approved by the World Summit for Children states that "all couples

should have access to information on the importance of the responsible planning of family size and the many advantages of child spacing to avoid pregnancies that are too early, too late, too many or too frequent".

57. Measured in terms of money, population programmes are cost-effective. In the case of one African country, the savings induced by its population programme, over a period of 30 years, in the sectors of health, education and agriculture total more than 2 years of its GNP. 15/ Population programmes have to be integrated with economic goals and strategies and the methods used have to take into account the social cultural environment of individual countries. The education of women, improved maternity and child care and family planning services are some of the means that have been used in population programmes. The subject of education and health are dealt with in separate documents and are not developed further here. The focus in what follows is on the last mentioned component. It must be seen as part of a broader programme which addresses the issues of social and human development.

58. Family planning, as an integral part of Maternal and Child Health program contributes to human development in many ways. First, it improves the health of women and thus their working abilities, especially in rural areas where a great part of the physical burden of the agricultural work falls on them. In terms of status, a woman's control over her own fertility is often called "the freedom from which other freedoms flow" and therefore, opportunities beyond marriage and having children are both a practical expression of women's rights. It increases women's ability to make their own decisions in life as well as their potential for earning an income. It improves their access to training and all forms of education. Also, it improves the health and survival of their children and enhances both their physical and intellectual potential. The process of building opportunities and choices consistent with human development begins at birth and cannot be seen separate from the conditions in which women have their offspring.

59. Family planning programmes have to be consistent with the value systems of society and have the support of political and social leaders. In programmatic terms, the aim must be to provide a wide choice of modern, safe and effective methods of contraception, well-trained and highly motivated workers with a sense of their value to the community and a respect for the community's own values. The quality of the services offered and the ability of women and men to take advantage of them also determine the success of the programme. Other complementary activities such as data collection, research and dissemination of information are also critical to achieve this objective.

Activities related to Population/Resources Planning

Population/resources planning mechanisms

60. An increasing number of countries have a Population planning unit integrated into their Ministry of Planning, or other relevant structure. This unit helps improve allocation of public investments and plan new infrastructure in the light of demographic trends. It enables planners to take into consideration the demographic variables affecting development and

the environment. Some countries have already put in place integrated population and resources planning mechanisms with success. Their experience could help design appropriate mechanisms for other countries.

61. In order to improve planning capacities and balance population with available resources to attain the desired stage of development, decision-makers need to understand the complex interactions between population change, socio-economic development and the physical environment of their country. No country in the world has unlimited capacities for action and its development options must be based on a scheme of priorities. A model of such interactions could be developed for every country to help orient development policies. Such a model would serve political authorities as a planning tool that demonstrates the impact of alternative policies and also indicates the feasible pathways towards politically desired goals without compromising other objectives, eg. environment conservation, social welfare, etc. Such a model is under experimentation for Mauritius. 16/

Identification of ecologically endangered zones

62. The poorest often live in fragile ecological zones. In order to assess the present situation and achieve sustainable livelihoods, an ecosystem approach to population and development planning should be adopted. UNFPA has elaborated such a programme featuring three major components: a framework and a methodology to select countries and classify critical ecological areas within the country where population and environment problems are endemic. This approach requires developing cartographic mapping techniques to reveal concentrations of populations that are presently beyond the carrying capacity of local and communal resource bases. The implementation of the programmes would involve major inputs from several ministries as well as inter-agency coordination in the form of financial resources, planning and technical backstopping. Such an initiative should fit into the development priorities of the country, and should build up national capacity in order that the project can be duplicated whenever a need arises in other parts of the country. Among the major fragile areas are forested uplands, coastal fishing areas, lowland areas of smallholder agriculture, arid lands with increasing numbers of grazing animals, tropical forests and urban slums. These activities complement the strategic options for ecosystems described under the sustainable livelihoods programme.

Monitoring of global environmental change and its impact on population

63. Environmental change as well as demographic trends are slow processes, with an underlying momentum. It is important to look ahead, to anticipate the effects of global environmental change in order to take measures beforehand, so as to minimize its possible negative impact on human populations. For example, trends show an increasing concentration of population on coastal zones. By the year 2,000, more than two-thirds of the world population is projected to live within 60 kilometers of the coast, and as many as three-quarters of them will inhabit tropical developing countries. The marine environment is extremely important for food, biological diversity and human activities in general. Given the projected concentration of population along the coasts, it appears that the socio-demographic dimension of coastal vulnerability to global change is a priority and should be fully addressed.

The framework for monitoring both demographic trends and environmental change includes the following socio-demographic components: population growth rates, distribution and migration, health, socio-cultural characteristics and their implications in terms of resource use. Quantitative data must be organized in such a way that they overlap with ecosystem. These activities are a part of a comprehensive assessment of the human dimensions of global environmental change in which various scientific institutions, United Nations bodies and NGOs are involved. 17/

Action at the International Level

64. The activities aimed at reducing demographic pressures have to be undertaken basically at the national level. This requirement is particularly important since many of these would have to be designed in a manner that would vary greatly from country to country and would have to take into account the substantial variations and socio-cultural attitudes and systems of values. Education and health, particularly for those components which are directly related to fertility behaviour like the education of girls, women's access to employment, maternal and child health, are also essential. Population programmes are most effective when linked with other activities aimed at eliminating poverty such as gainful employment, education and other activities listed under the programme of sustainable livelihoods. A coordinated implementation of all these in priority target areas, and among priority target groups, would enhance their results. International assistance also needs to be enhanced:

- for population activities undertaken by the UNFPA and other organizations;

- for population programmes run by countries;

- for the very substantial efforts in this direction being made by NGOs.

65. Given the needs to be covered and the urgency of the task, the Preparatory Committee may wish to consider suggesting that multilateral and bilateral assistance for programme activities in the area of population should be doubled by 1995.

C. HUMAN DEVELOPMENT

66. Human dimensions are the core of development. If economic growth is necessary for development, any growth which does not translate into improvement of human life misses the target. The major components of human development are education and health, as well as equity, freedom and, more generally speaking, the capacity of each individual to play an active and creative role in the society.

67. The major objectives and activities to be implemented in the Health and Education sectors are described at length in the corresponding documents prepared for the third session of the Preparatory Committee (see A/CONF.151/PC/54 and 55).

D. THE LIVING CONDITIONS OF THE POOR

68. Sustainable livelihoods, the balance between population and resources, and human development should take place in an appropriate physical setting characterized by decent habitat and adequate infrastructure if poverty is to be eradicated. Access to clean water, sewage and garbage systems are an important part of the living conditions of the poor and therefore deserve the attention of policy makers. The specific objectives, targets and measures submitted to the Preparatory Committee in this sector will be found in the corresponding documents: Human Settlements, Freshwater, Solid wastes, etc. (see A/CONF.151/PC/56).

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